

TONGLIN JIA

CHINESE

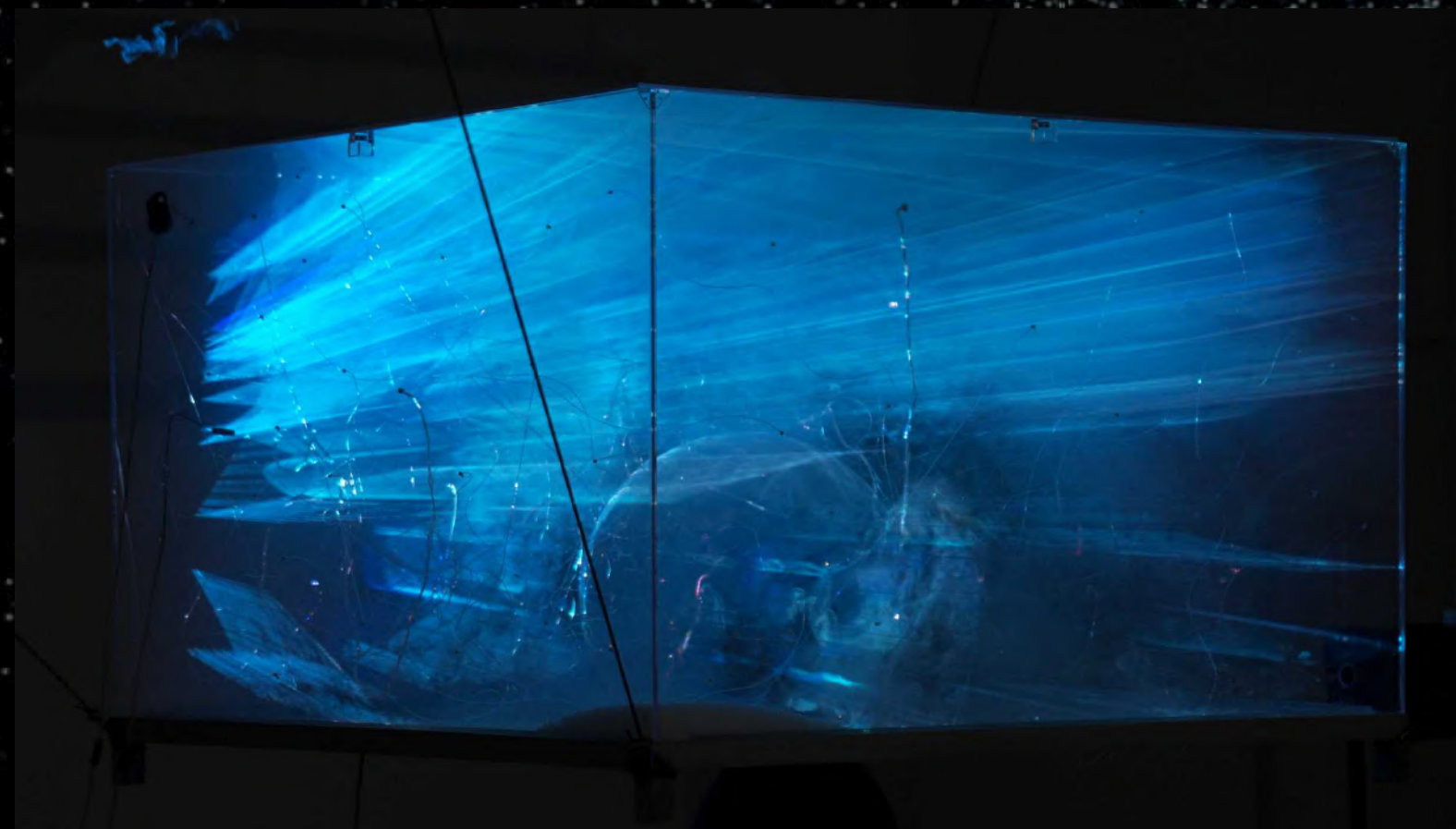
29-08-2001

Beijing Based Cross-Media Artist

Tonglin Jia is a Chinese interactive artist currently based in Beijing. He received his Bachelor's degree in photography from Communication University of China. As an independent creator, he engages in artistic creation through various media such as interactive installations, experimental video, and data-generated images, in order to explore and express personal perspectives and reflections on society.

No.1 The big world

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Installation



No.2 Shelter

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Interactive video installation



No.3 Stew

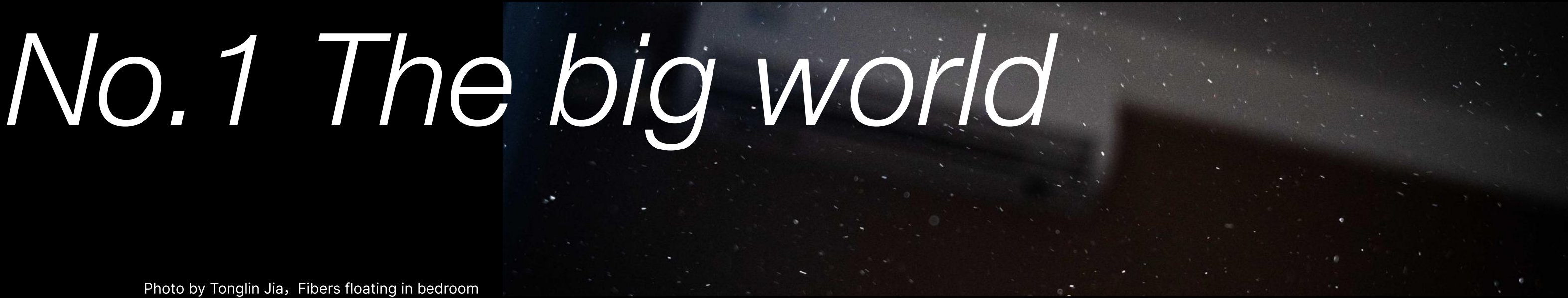
Page 9-11
Installation



No.4 Shouting Ads

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Video installation



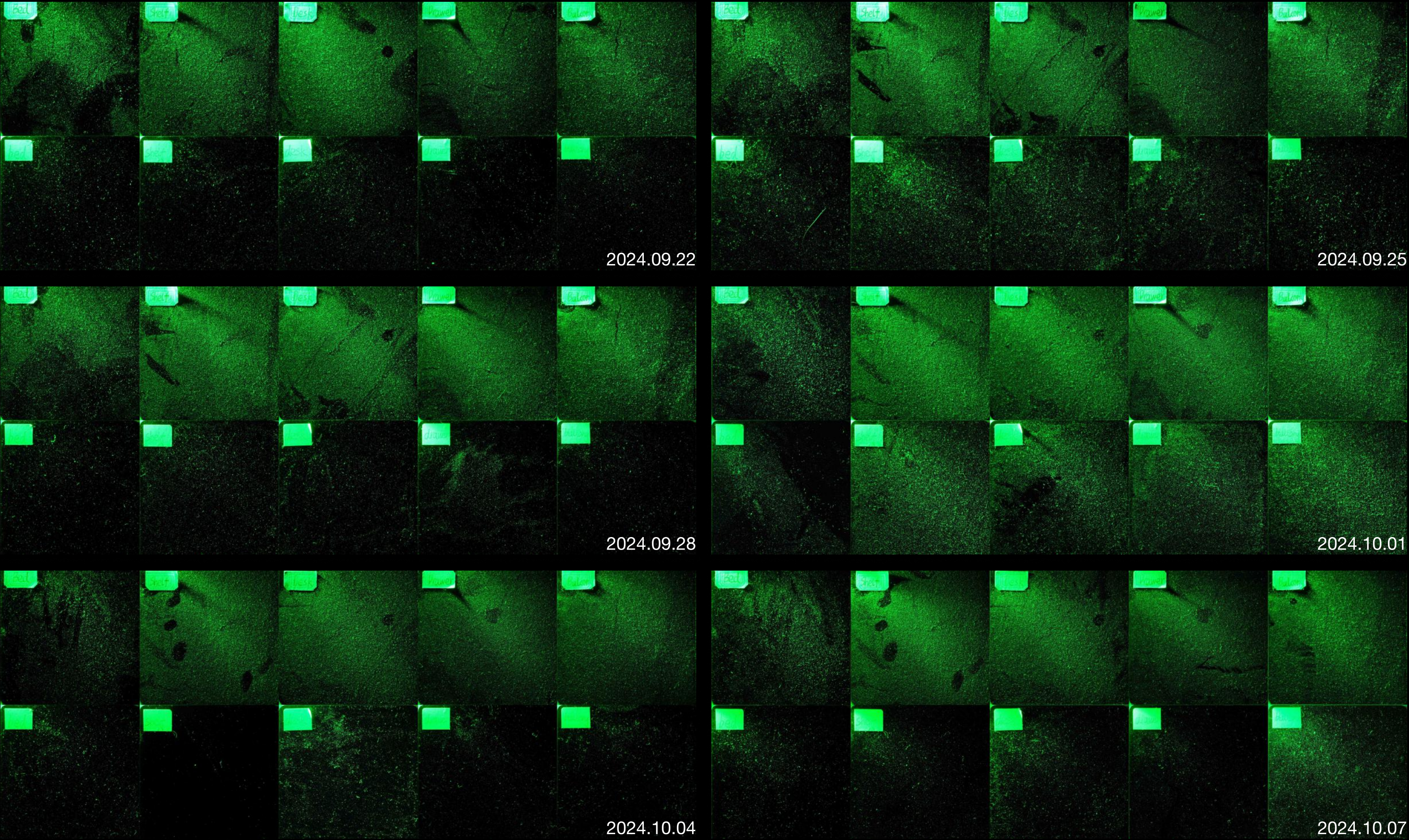


In indoor spaces, I often observe microfibers floating in the air or settling on the surfaces of objects. These microfibers have become an allergen for me, evoking my aversion to these seemingly insignificant but omnipresent particles. They cannot be fully eliminated because they are continuously produced.

I analyzed how human activities affect microfiber concentration over time and found that the level of microfibers in my environment changes in response to my actions. At the same time, my body's sensitivity to these particles also adapts. Although both the microfiber system and my body's perception fluctuate, they overall maintain a stable dynamic balance. This is how I start to research on the relationship between manmade environment and microfiber system through multiple perspective, focusing on the concept of "Forced-Symbiosis". In Post-industrial era life, we all have an abundance of textiles and are constantly in contact with them, creating an unavoidable dependency on microfibers that we cannot consciously control.

Based on this understanding, I became intrigued by the dynamic balance and "Forced-Symbiosis"between humans and microfibers. I further explored the diverse forms of microfibers and transcending anthropocentric narratives to imagining a space for the fibers themselves, where they could move freely without human interference.

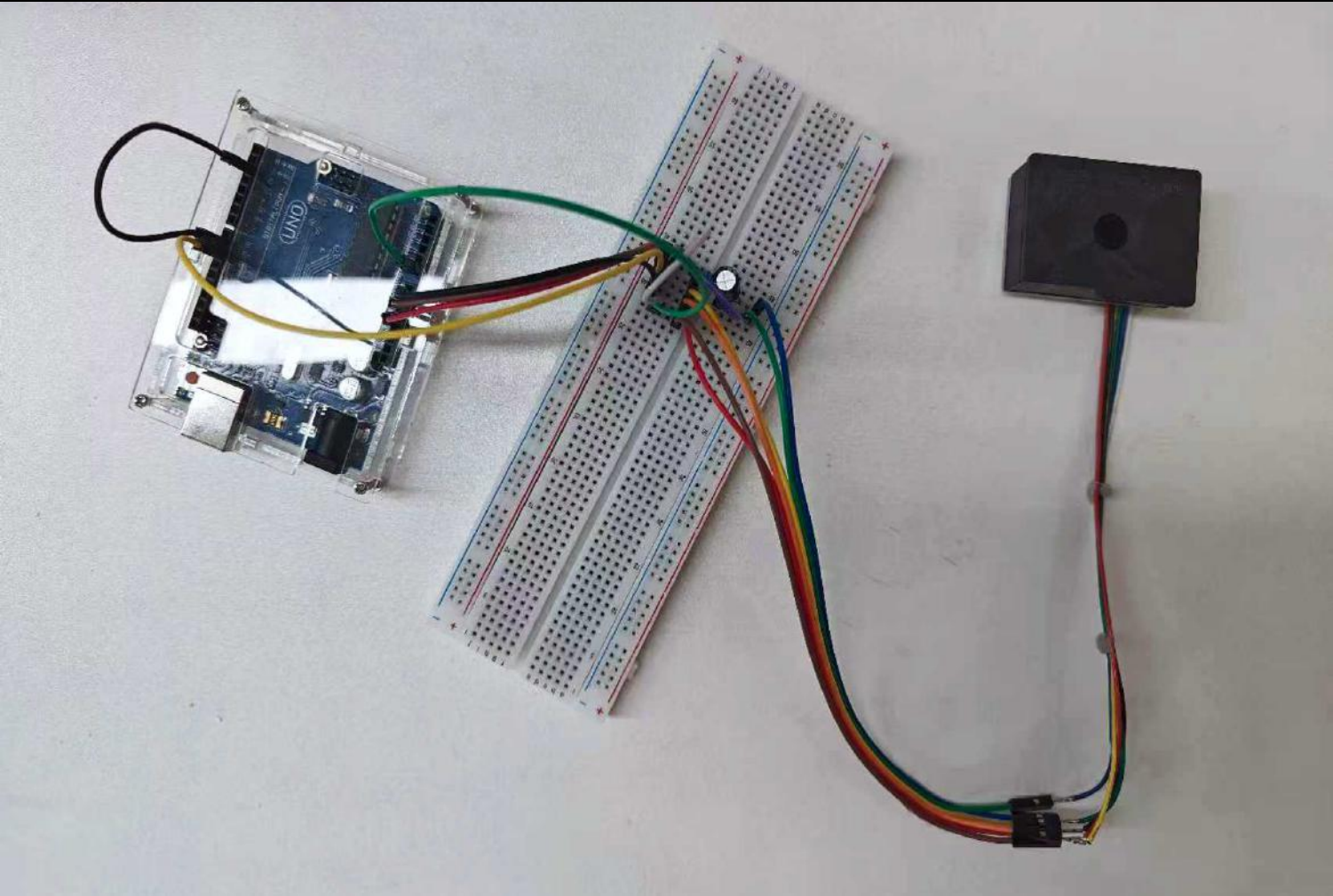
The Big World is an Interactive Installation uses everyday items like fishing line, plastic wrap, elastic cord, and correction tape to simulate the form of microfibers. It employs vibration motors, servos, smoke machine, and projected images to simulate the movement of these fibers, creating a space that belongs to the fibers. I invite viewers to enter the bottom of the installation's dome, experiencing the "performance" of these fibers up close while listening to the sounds produced by their movement. This immersive sensory experience allows the audience to perceive their relationship with microfibers from a new perspective, becoming a part of this microscopic world, rather than just passive observers.



1. At five locations—Bed, Shelf, Desk, Drawer, and Balcony—in the bedroom, two 10 cm² black glossy acrylic sheets were placed. They were observed under light with a wavelength of 555nm.
2. One sheet at each location was cleaned before the next observation cycle; the other was left uncleaned to accumulate fibers.
3. In certain cycles, an increase in fiber count was noted, associated with activities like airing clothes or changing bed linens, which released more fibers from textiles.



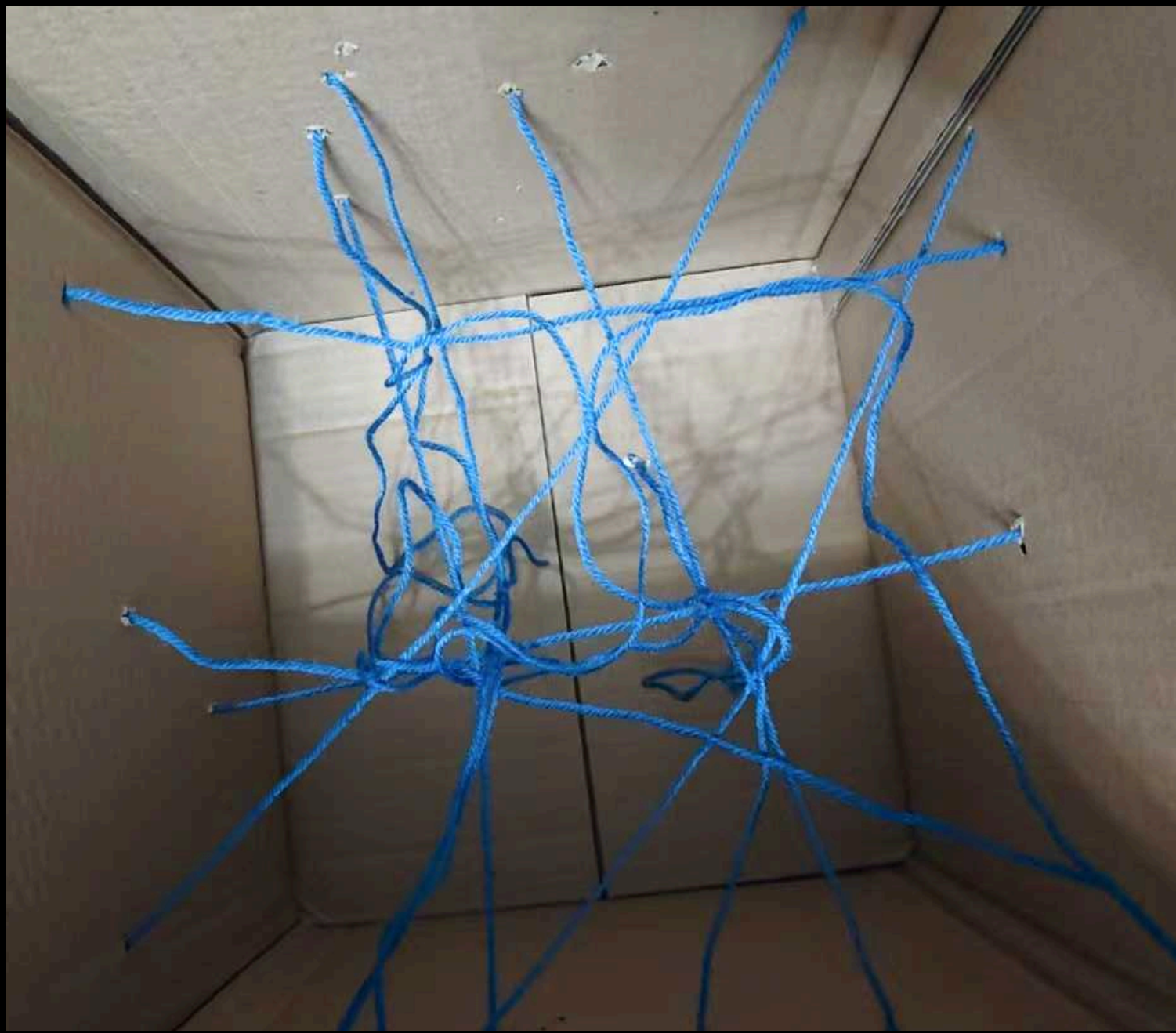
Installation view, Object NO.3, 2014
Nabuqi : A question is also a form of sculpture, M WOODS Museum, Beijing, 2024



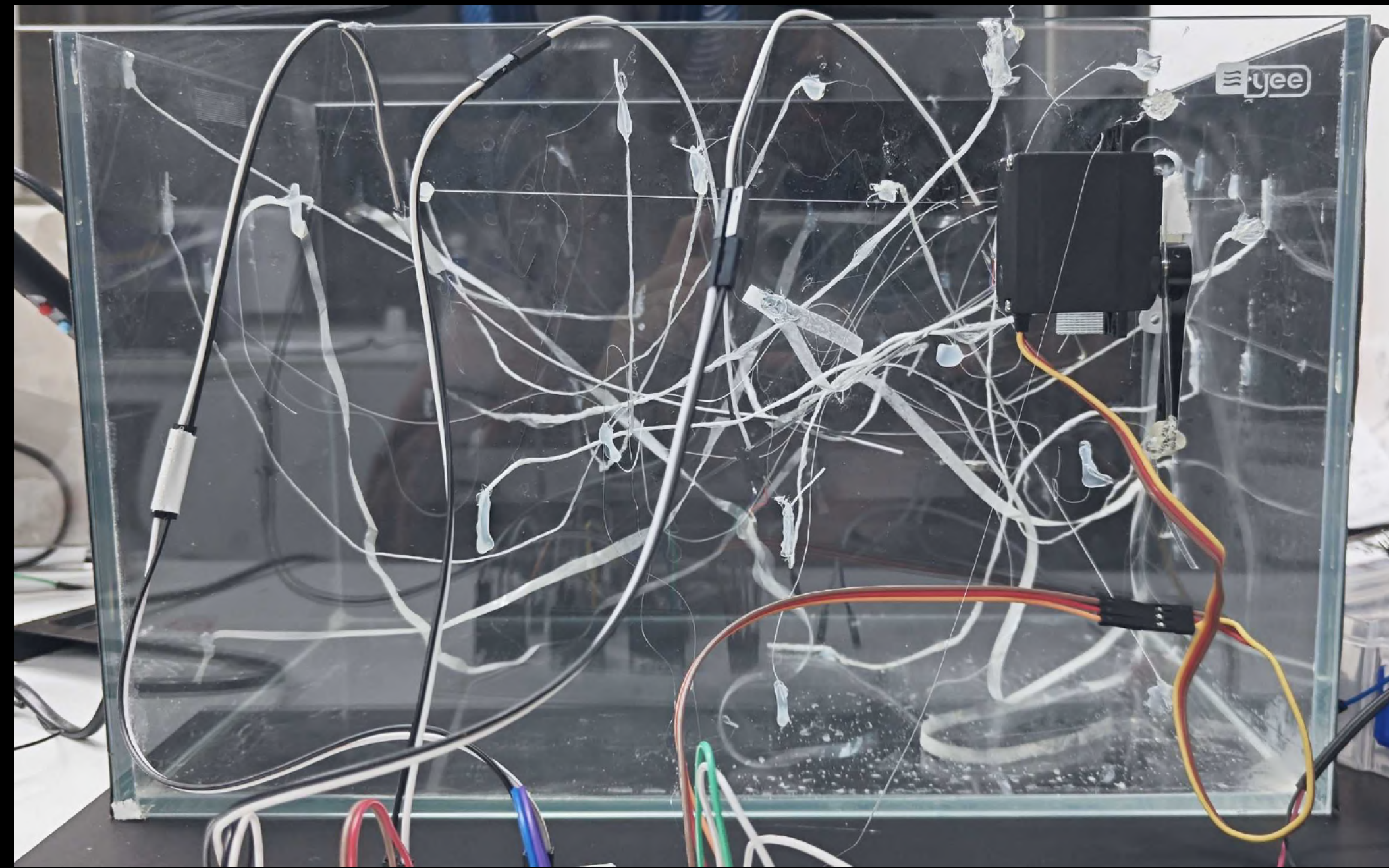
The SHARP GP2Y010AU0F particle sensor is used to measure changes in fiber concentration as the artist performs activities related to the fabric.



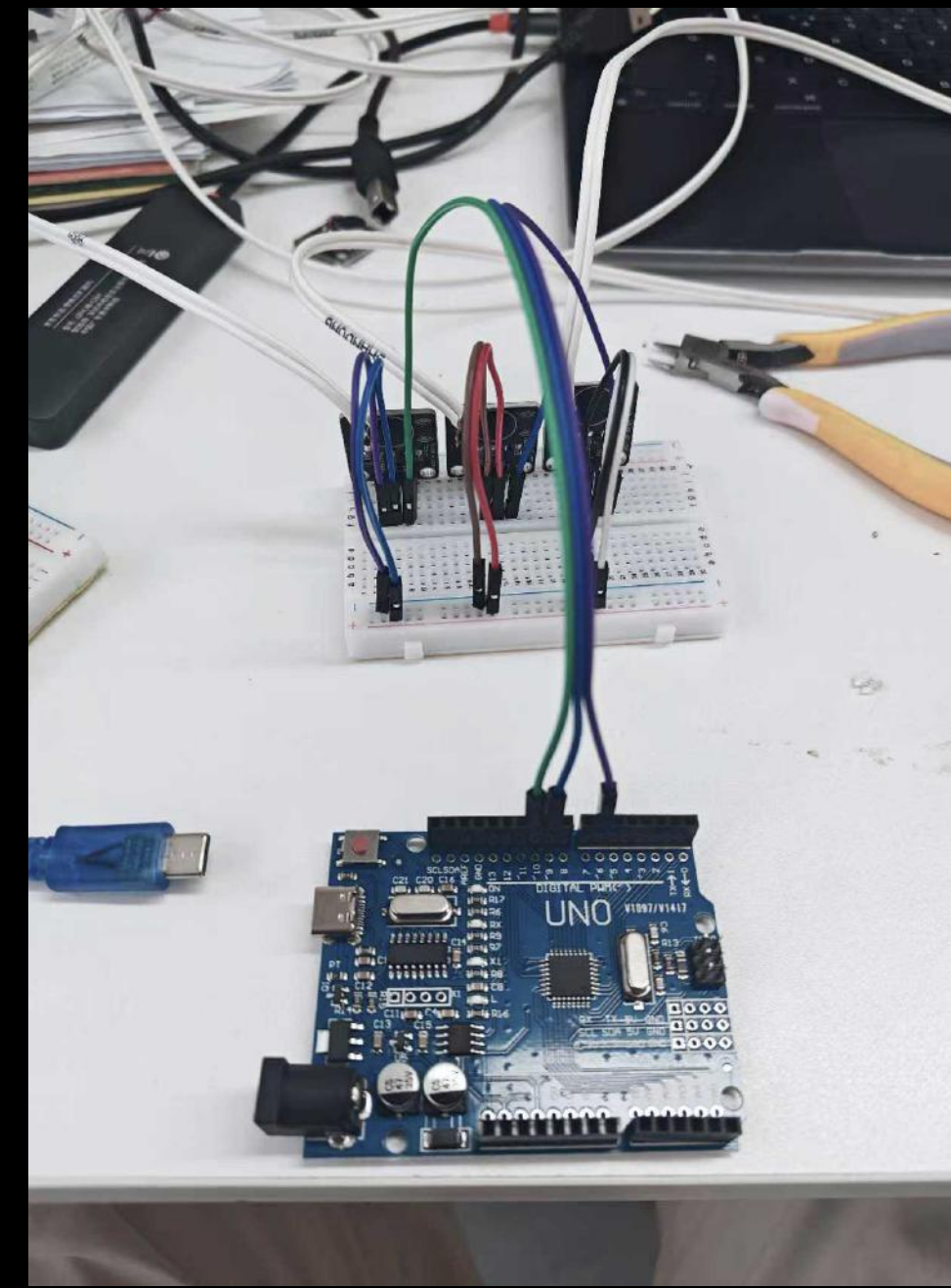
The microfibers were observed with a fibers showed different shapes:
Smooth - Rough Round - Flat Intervein - Intertwine



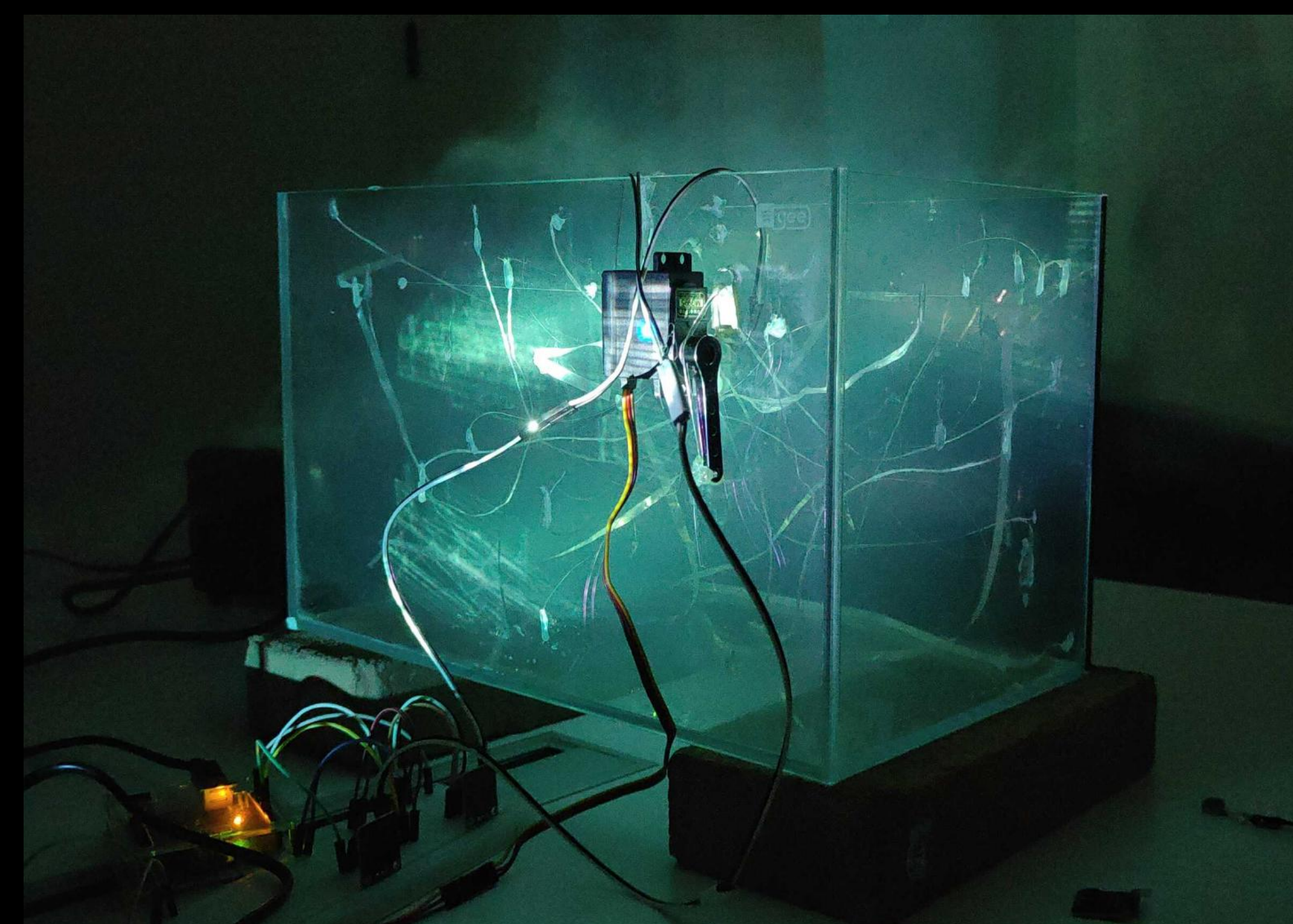
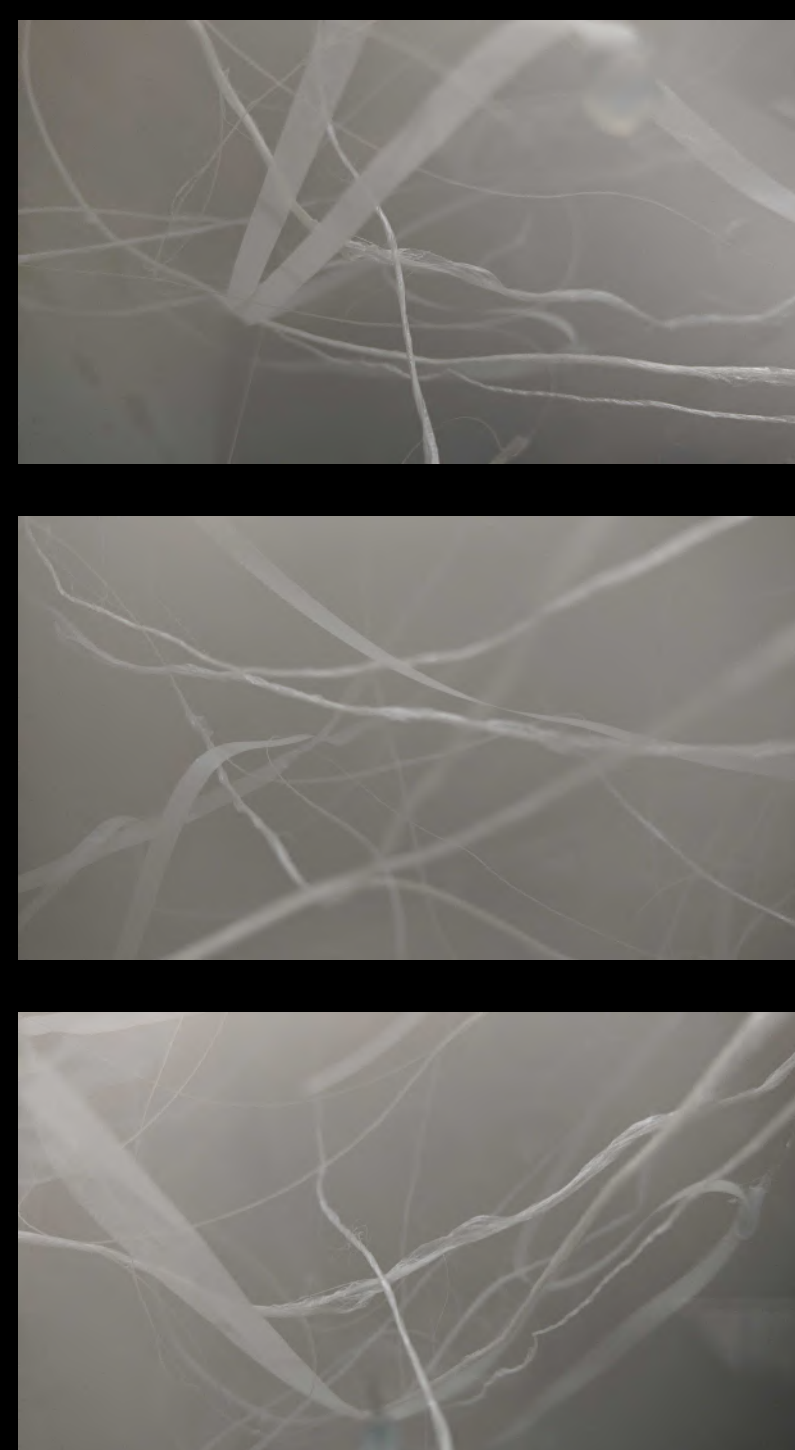
The first version made from cardboard boxes and wool



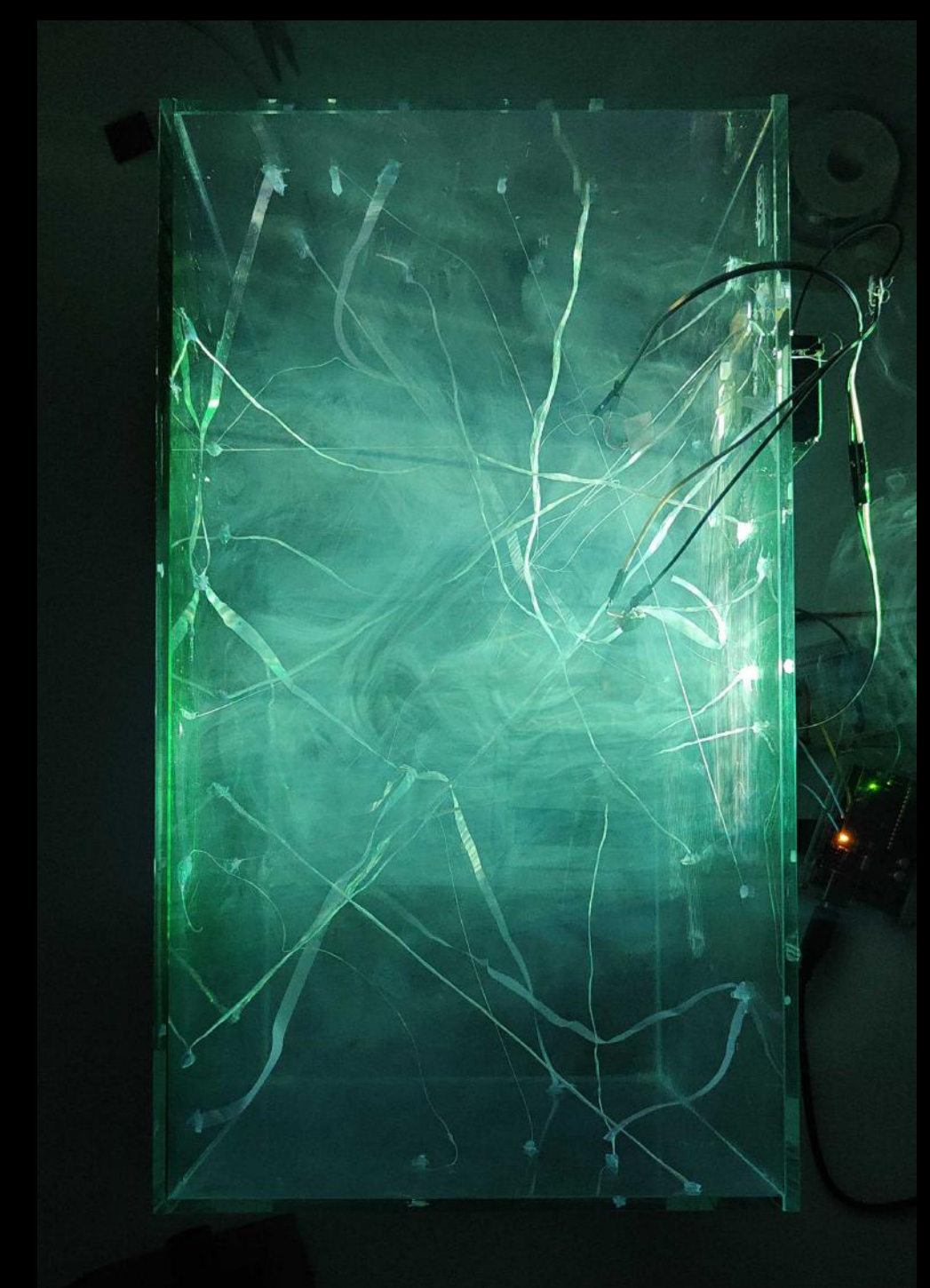
Three flat cylinder vibration motors are added, maximum speed 9000 RPM, pwm control, vibration frequency can be set separately. Vibration transmitted between the fibers, causing all the fibers to vibrate together. Steering engine is added to pull one fiber and move the other fibers which are wrapped around it.

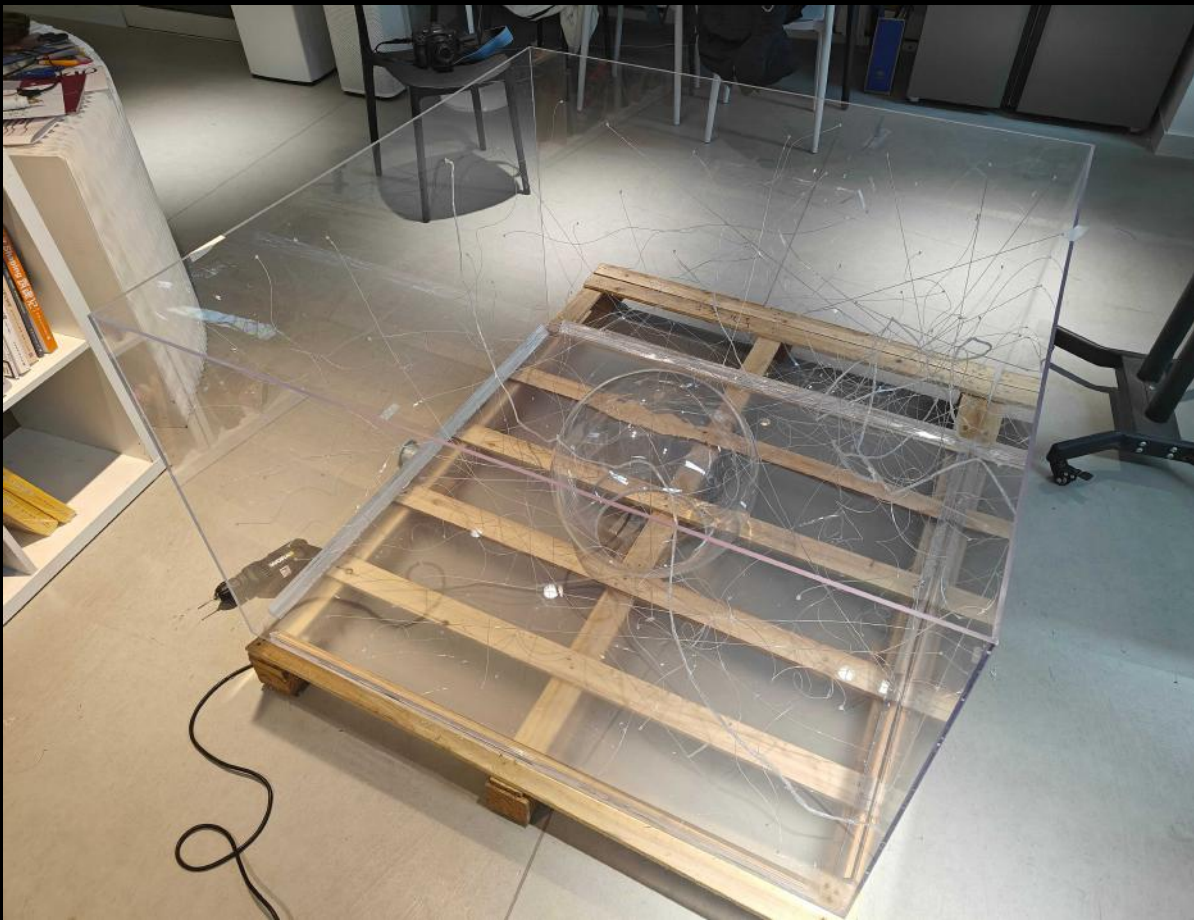
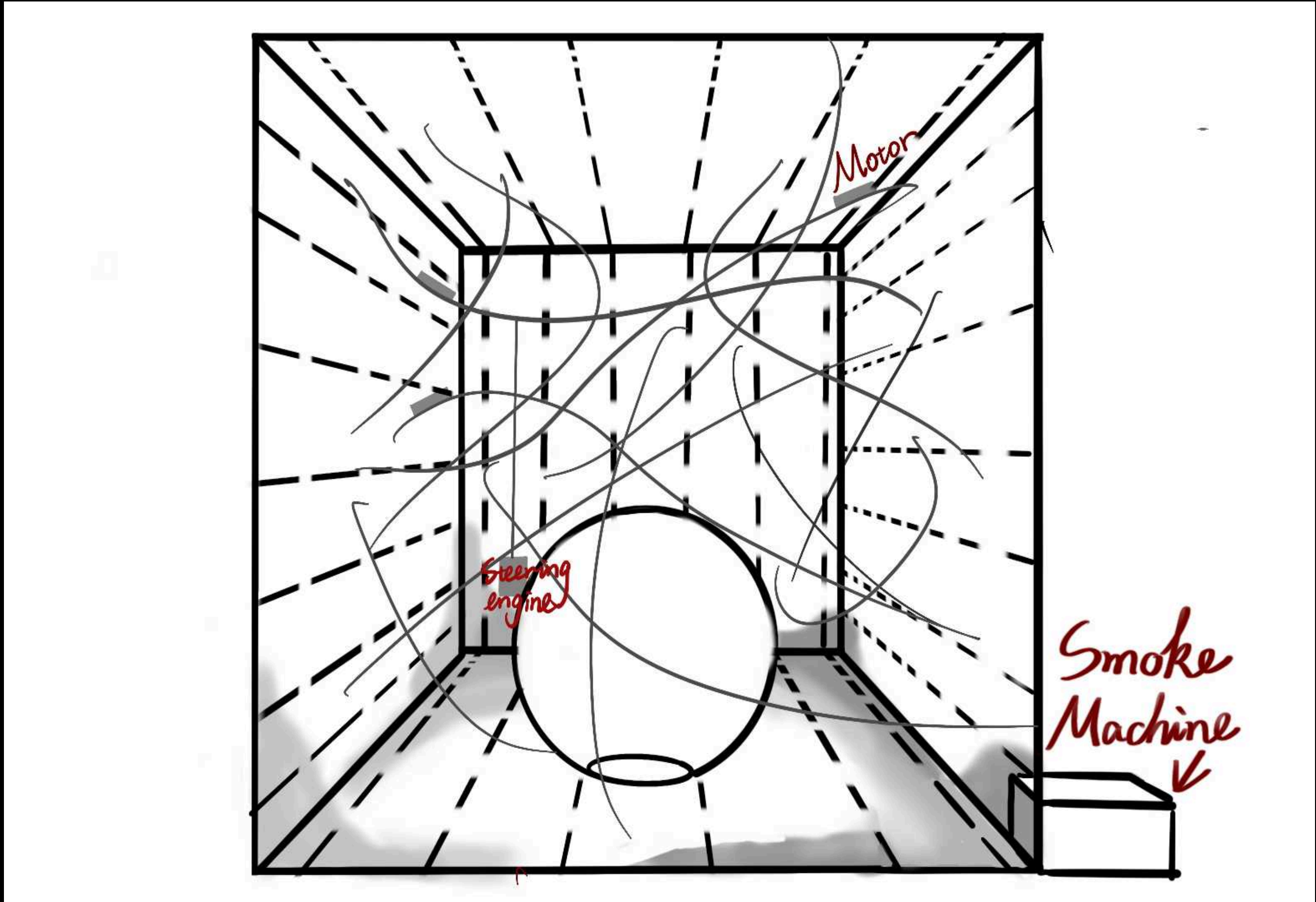


The second version made from glass tank, plastic wrap cord, fishing line, empty correction tape, and hot glue. Use smoke pellets to create smoke effects, and use spotlight to illuminate the installation.

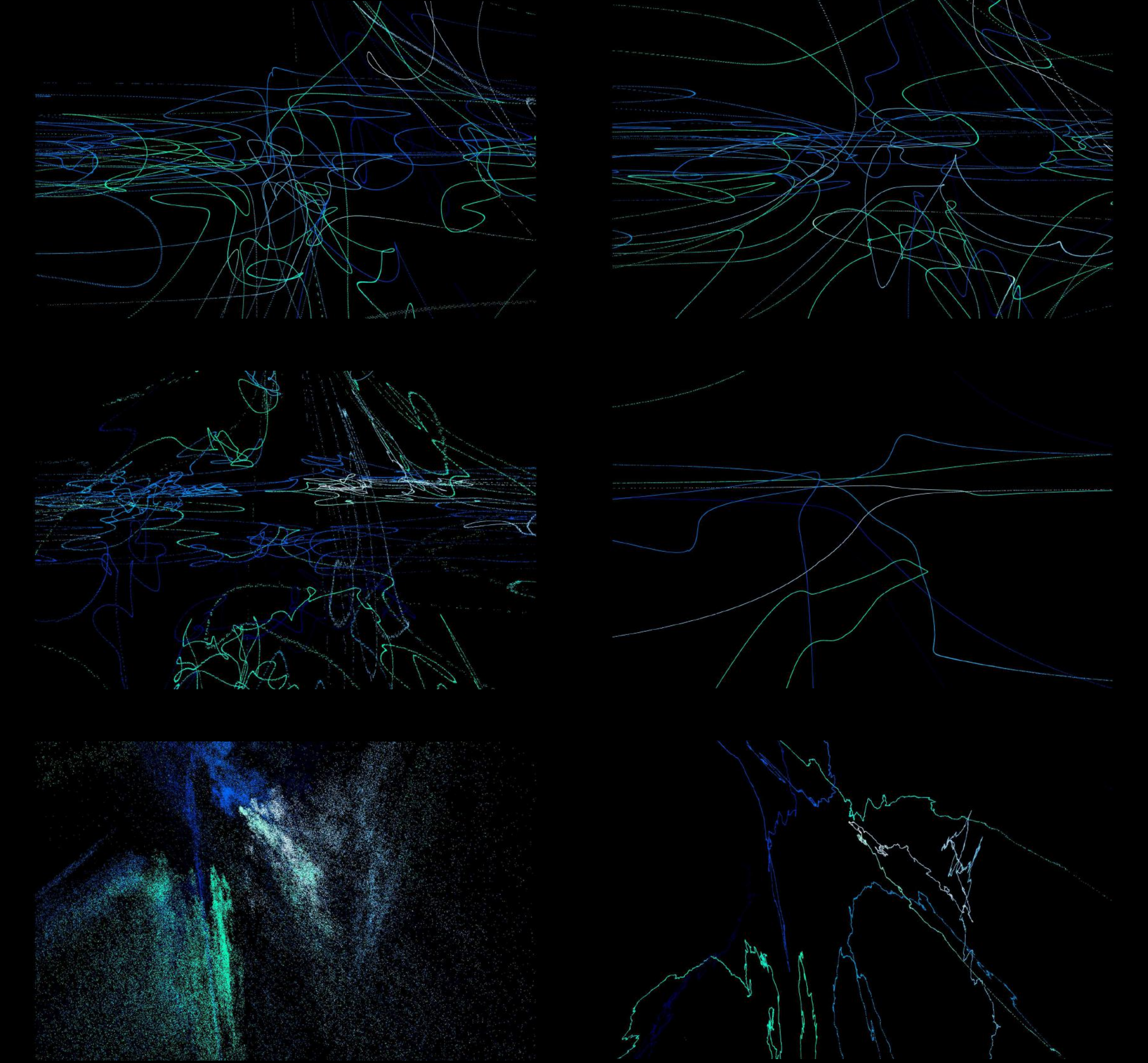


Replaced the smoke pellets with a stage smoker, controlled with 315 MHz wireless transmitter and receiver modules on a timer. Switched from a spotlight to a horizontally positioned projector for visual experiments.

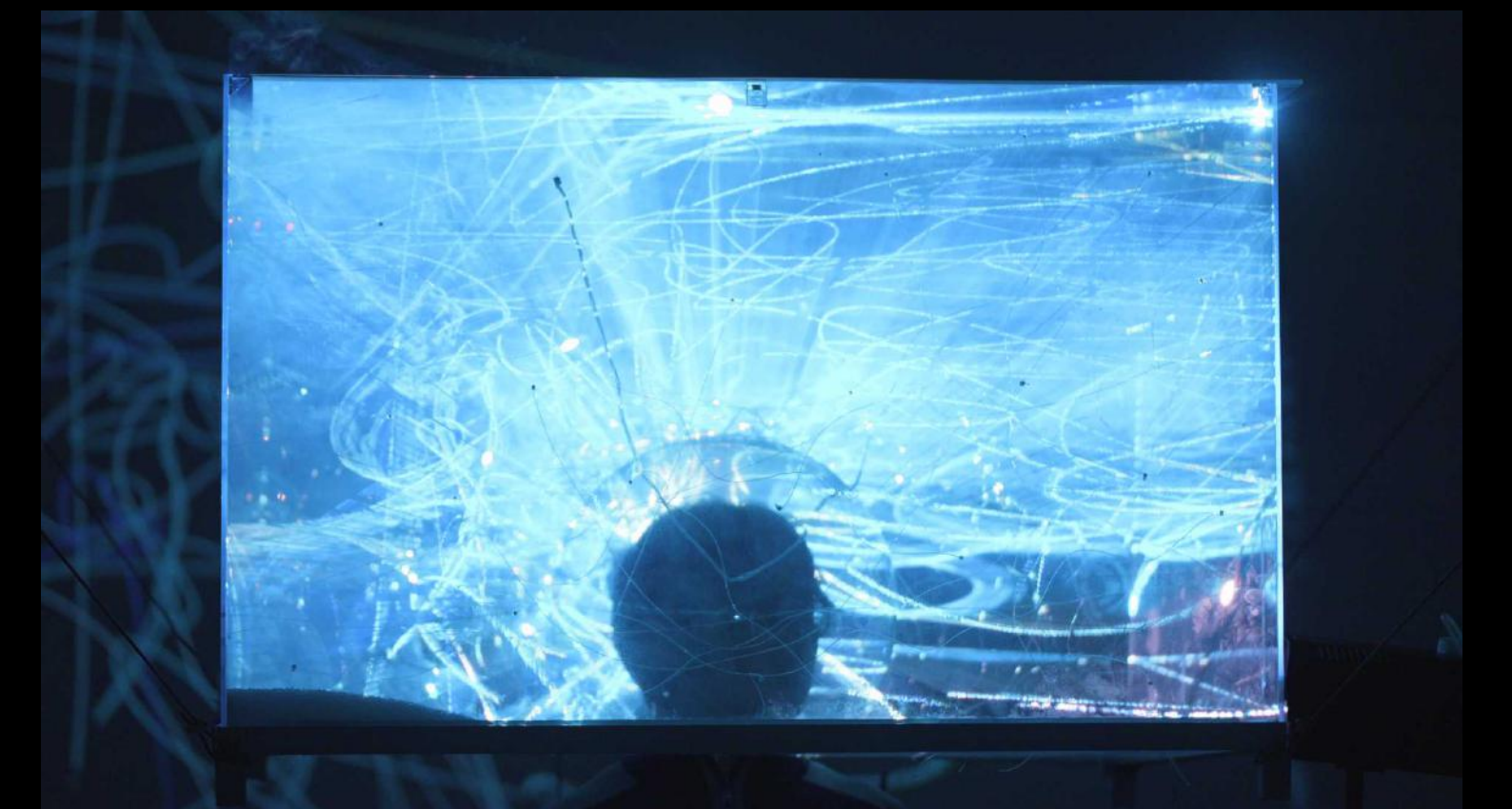




I further replaced the glass aquarium used in the experiment with a transparent acrylic cube, which is 1100 mm long, 1100 mm wide, 70 mm high and 5 mm thick. A spherical acrylic hood is placed at the bottom of the hood, and the user can stick his head into the hood from the bottom to watch the movement of the fibers, replacing the 0.1mm diameter fishing line with 1mm in diameter, and adding a elastic wire with a circular cross-section of 1.5 mm in diameter. Drill a hole on the right front side to connect with the smoke outlet of the stage smoke machine, and replace the small and medium-sized flat vibration motor in the experiment with a hollow cup vibration motor with stronger vibration sense. A single motor is 27mm long and 7mm in diameter, and stick them tightly to a section of the fiber.



In touch designer, I created the performance vision, which showed the interweaving and winding shape of fibers under the microscopic condition



Installation

2024

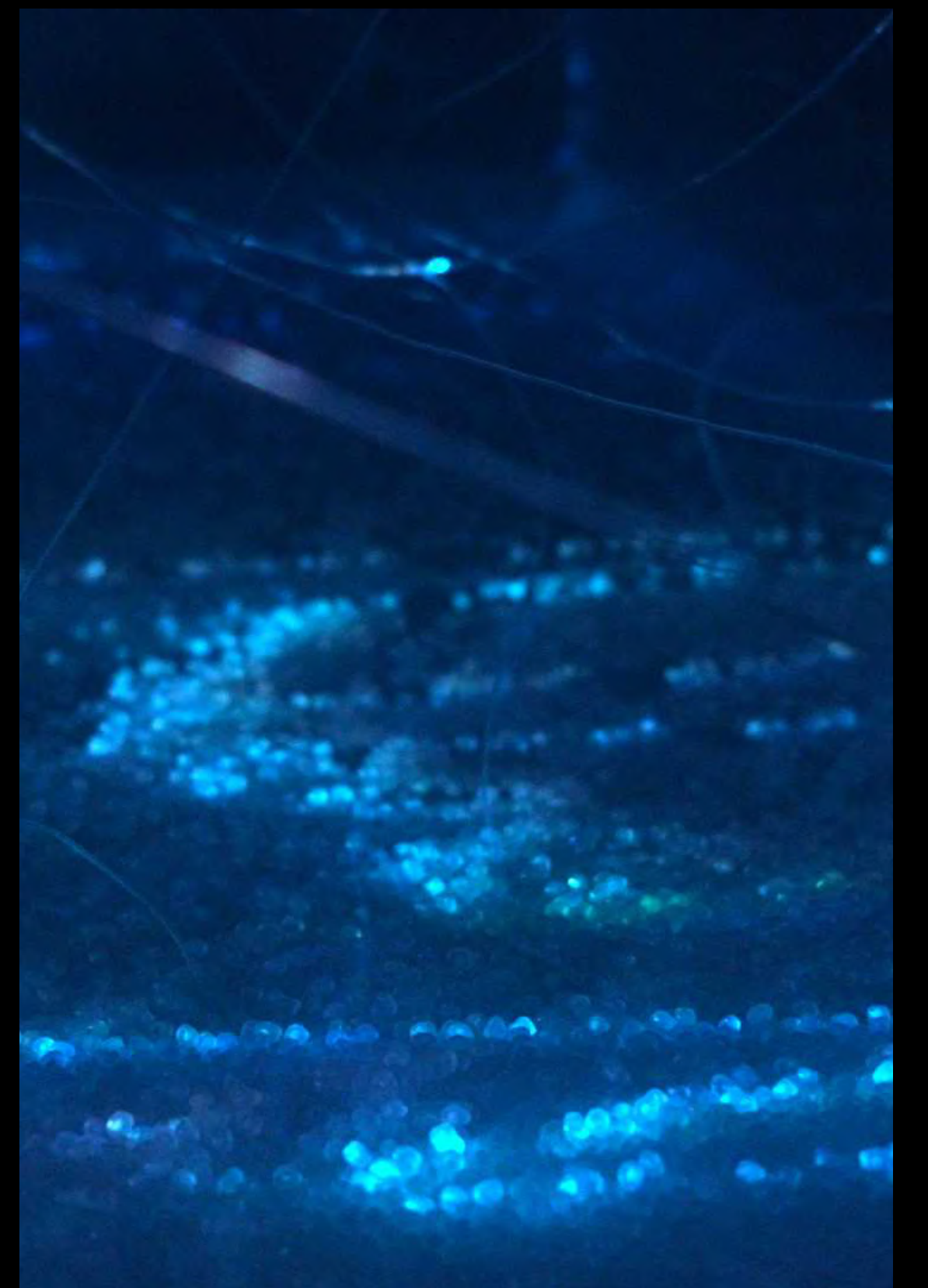
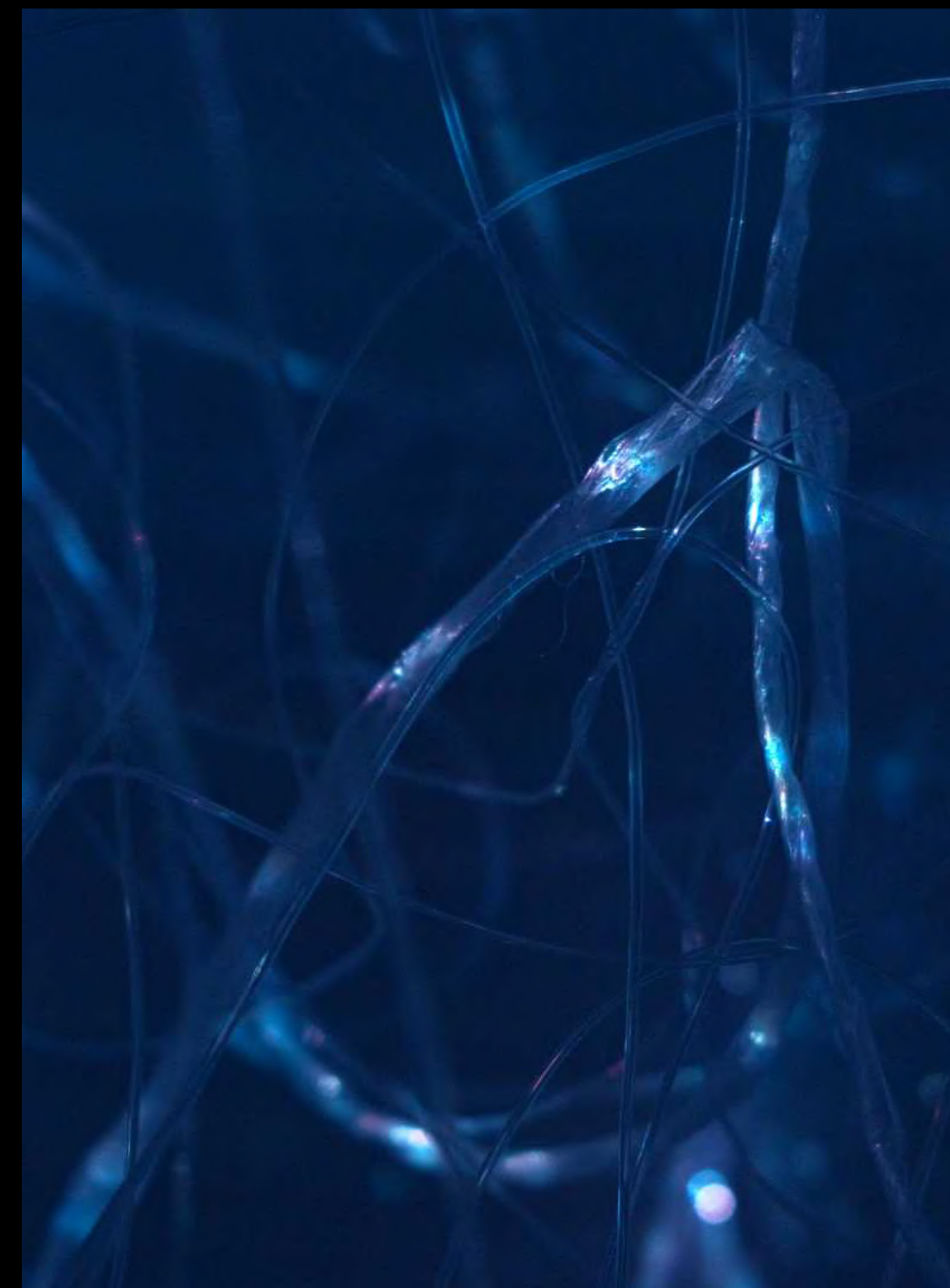
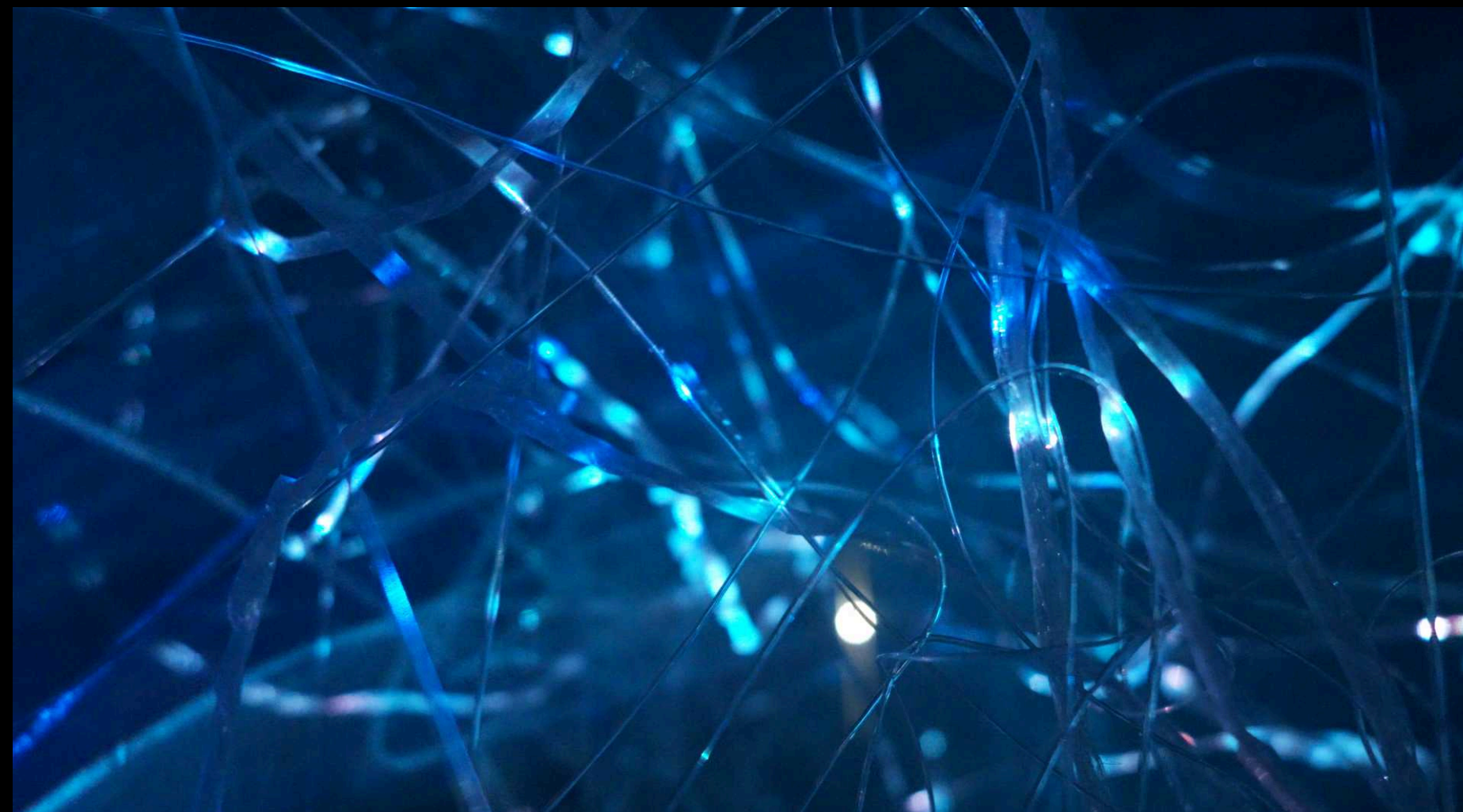
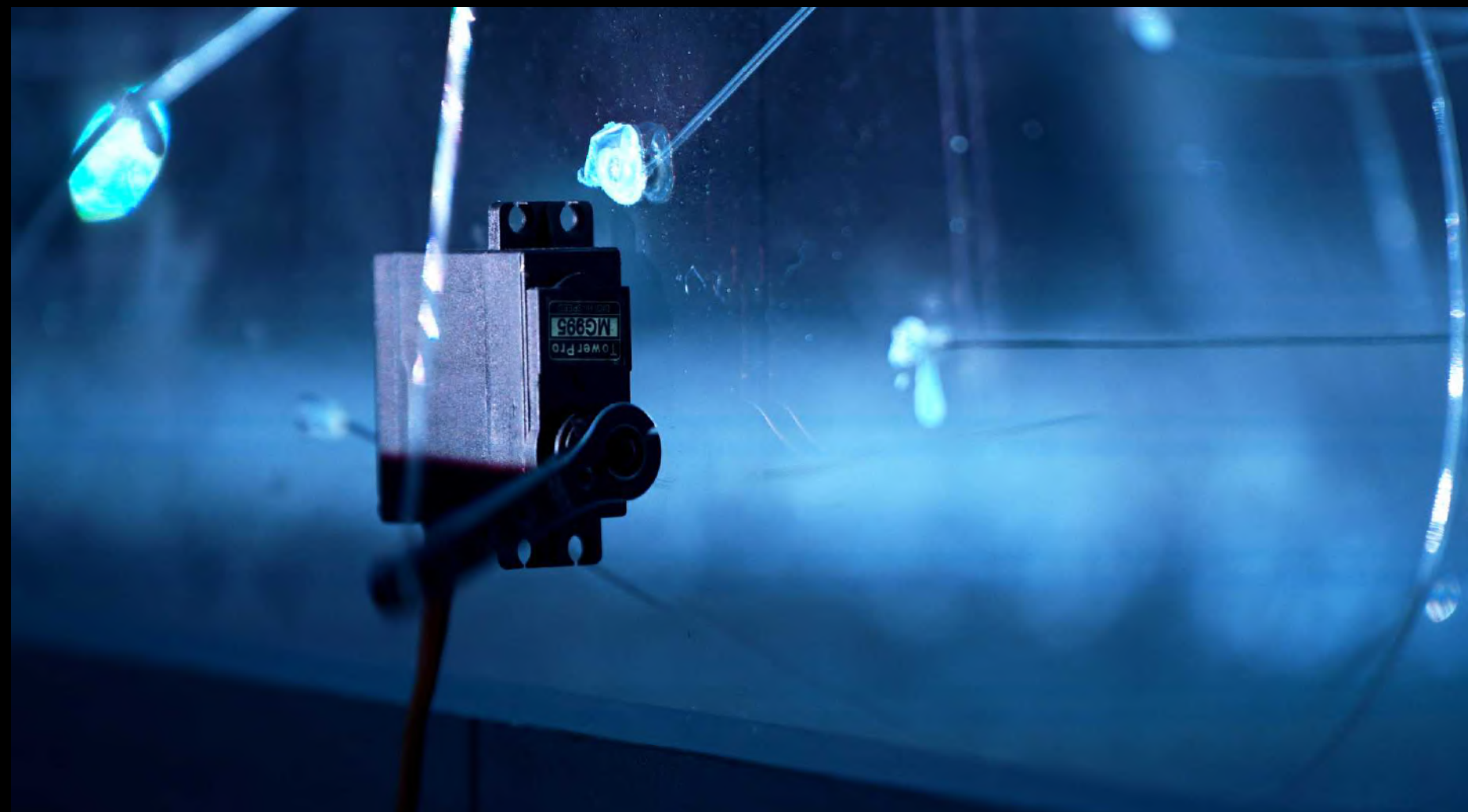
3'48"

BEIJING

Data-Generate image, smoke machine, realtime audio

Acrylic, elastic, plastic, vibration motor, steering gear

<https://youtu.be/qOuekGrEfrg>



No.2 Shelter

I have lived in Beijing since I was born, but the city has become increasingly unfamiliar and inaccessible to me.

In the rapid urbanization, high-rise buildings have replaced bungalows as the new landscape, and glass and tiles have become examples of old and new materials in the city. At the same time, urban culture is fragmented with the division of urban space, and everyone is like a piece of debris, sharp and cold in appearance, and is forcibly and disorderedly stuck together, forming the seemingly tight, good, and stable running state of the whole city.

When it rains, I feel a little tranquility. Through Shelter, I hope to recreate the temporary landscape created by rain in the urban context and explore its natural healing function for the city's multicultural community.

I deconstruct the essence of rain, extracting its visual and auditory elements. Shelter collects my heart rate data through a sensor, and interacts with the image designed in TouchDesigner to simulate the shape of rain in real time. Visuals are projected on a dome-shaped sculpture made from debris of glass and tiles. I hope that the split in each person's heart shrinks as the rain heals.



Photo by Tonglin Jia, a rainy night at Dongsì Fourth Lane
The blue-green bricks and tiles in the alley, with streetlights that also emit a cool light.



Photo by Tonglin Jia, a rainy night at China World Mall
The wet glass curtain wall and marble floor after the rain reflect the light and shadows of the building.



Photo by Tonglin Jia, at Dongsì Fourth Lane
The drainage channel made of roof tiles is draining the rainwater from the roof.



Photo by Tonglin Jia, a rainy night at China World Mall
In the most bustling commercial districts of Beijing, luxury stores are decorated with large glass curtain walls and marble.



Photo by Tonglin Jia, a rainy night at Jianguomen Outer Street
The commercial building with a fully glass façade is adorned with cool-colored advertising signs, while the sodium vapor streetlights cast an orange-yellow glow.

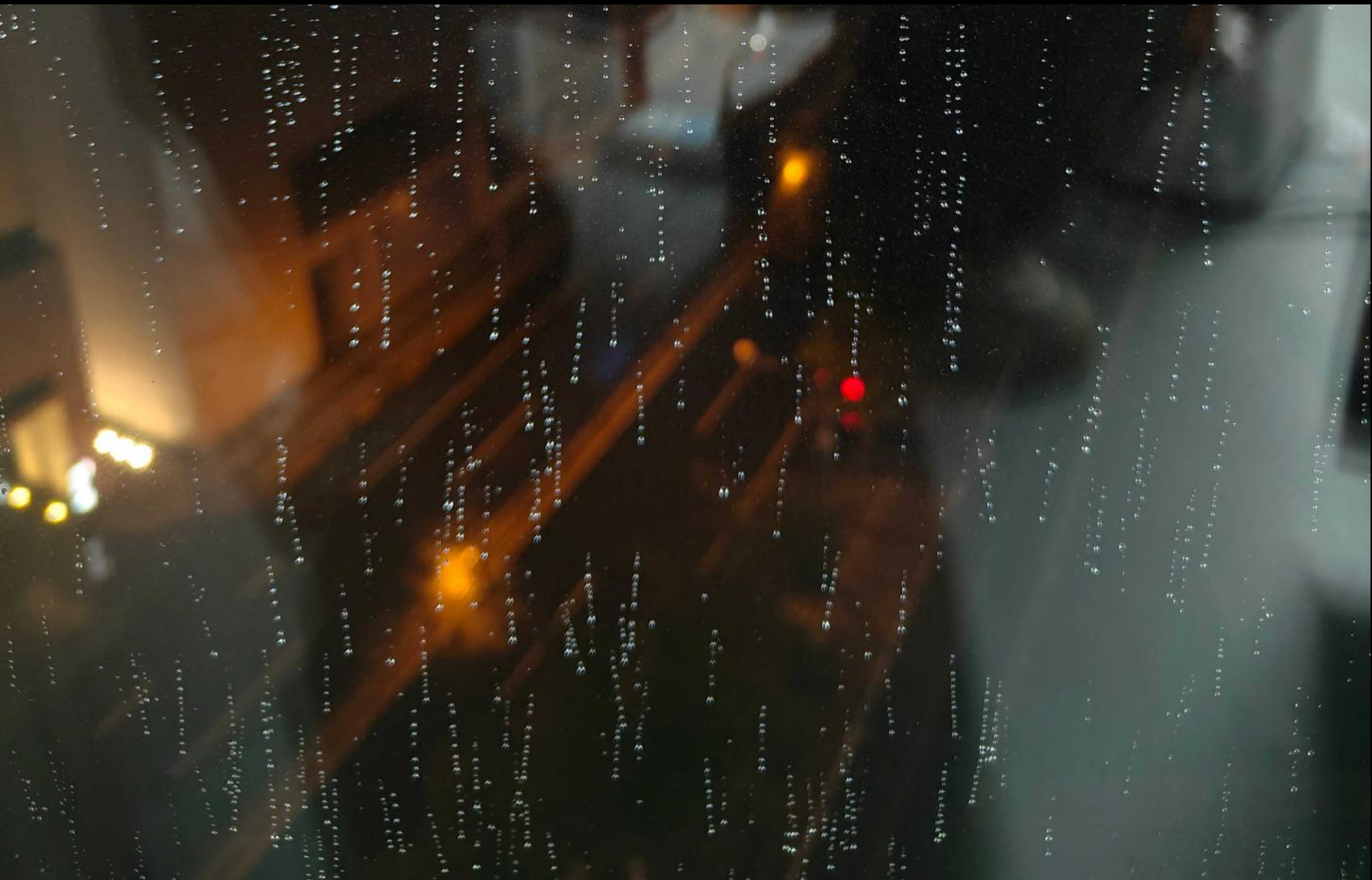


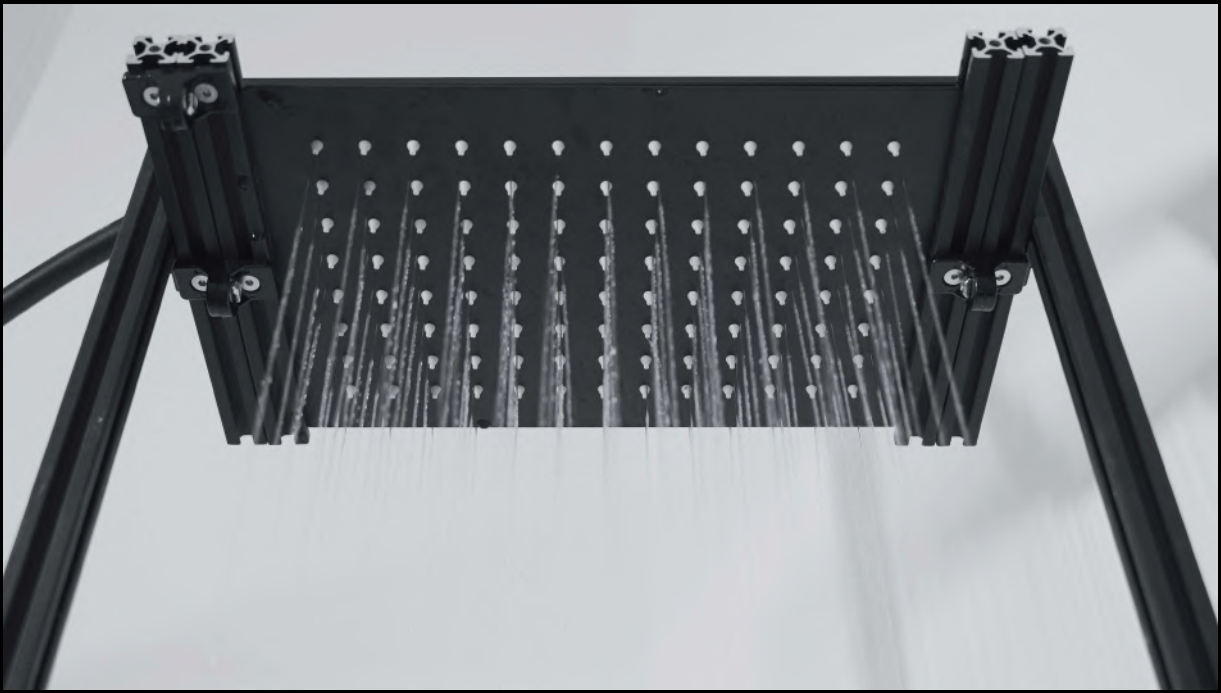
Photo by Tonglin Jia, a rainy night at Jianwai SOHO
Tiny raindrops hit the glass of the building, forming a pattern of multiple continuous elongated dots.



Photo by Tonglin Jia, at Dongsì Fourth Lane
The roof tiles of the courtyard houses in the alley have a special arrangement that allows for rapid drainage during rainfall.



Recreate the atmosphere of rain in Beijing at night.
1. Water droplets from the shower hit the plastic bag
2. Light tube mimic the streetlights



Shower with a square arrangement of circular silicone nozzles
Use silicone tattoo practice skin for simulate texture of human skin



The dome model glued with hot glue.



'Raindrop' hit the glass



'Raindrop' hit the roof tiles



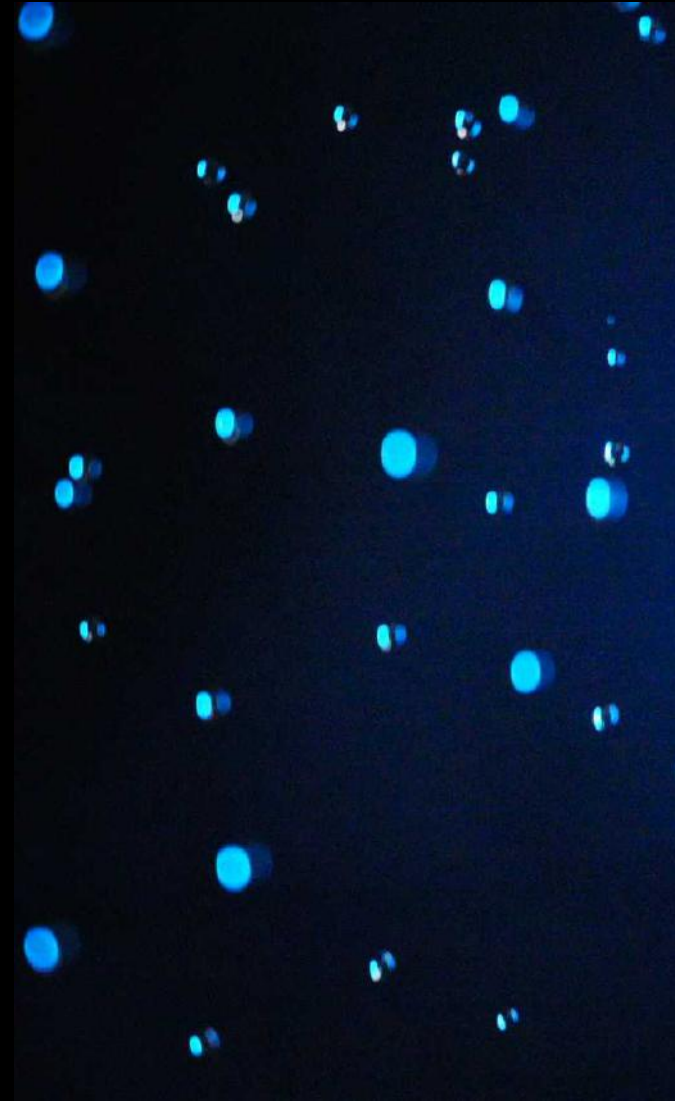
1/15 S



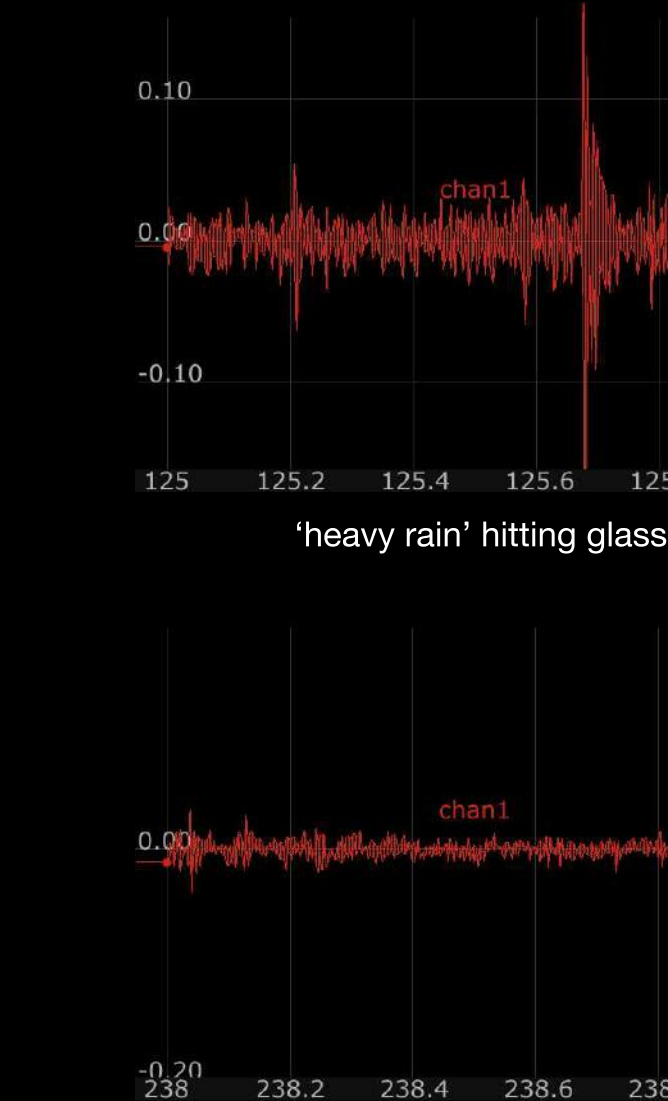
1/25 S



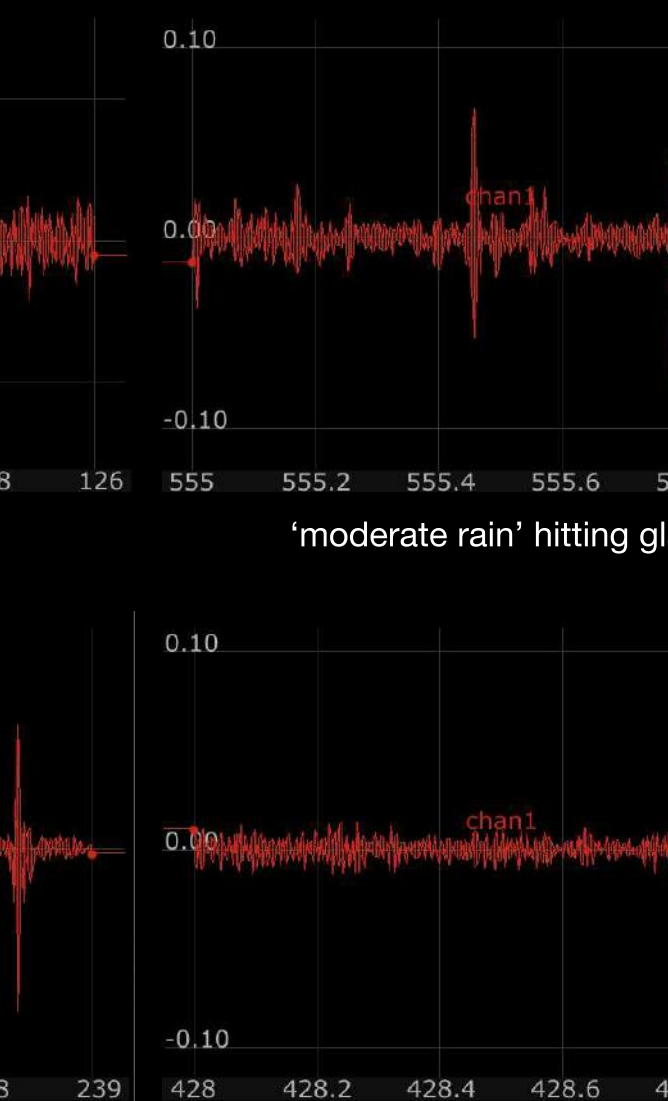
1/50 S



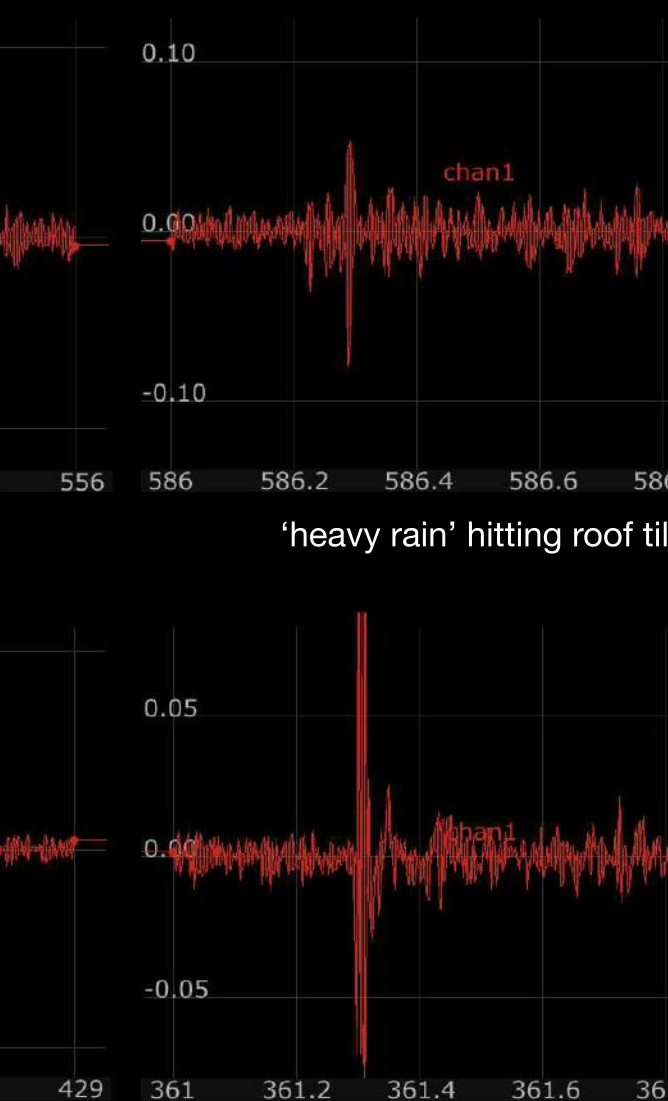
1/800 S



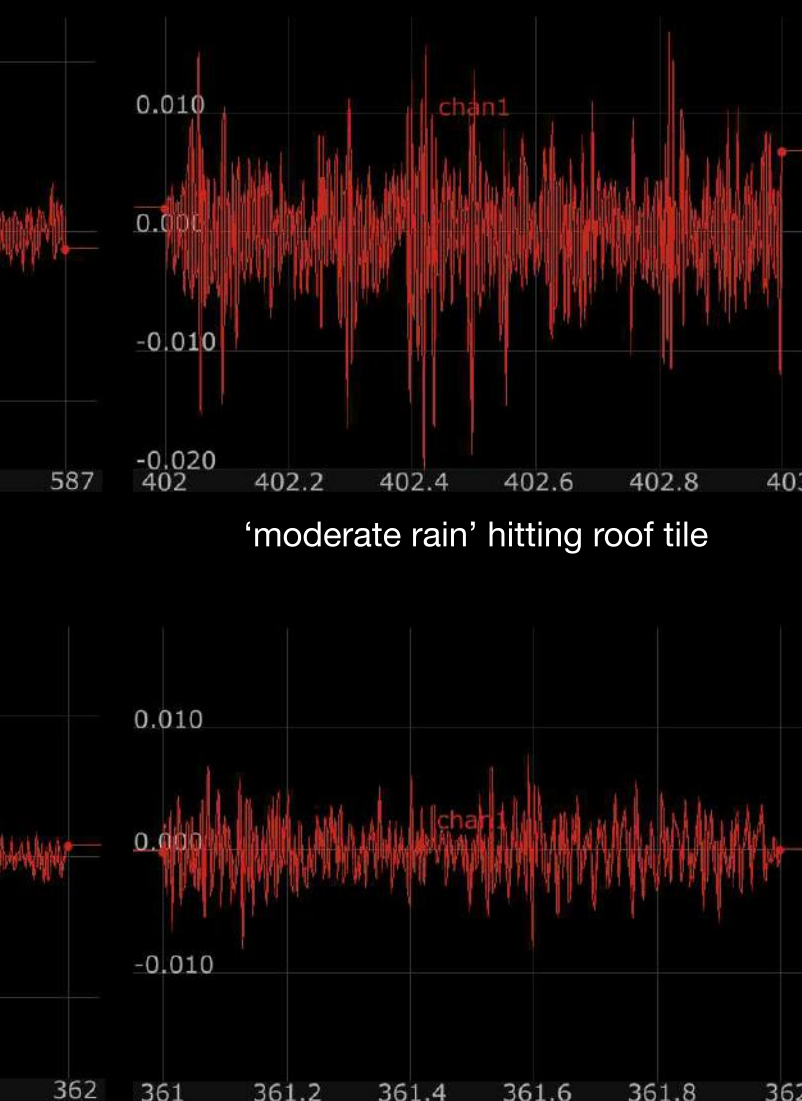
'heavy rain' hitting glass



'moderate rain' hitting glass



'heavy rain' hitting roof tile

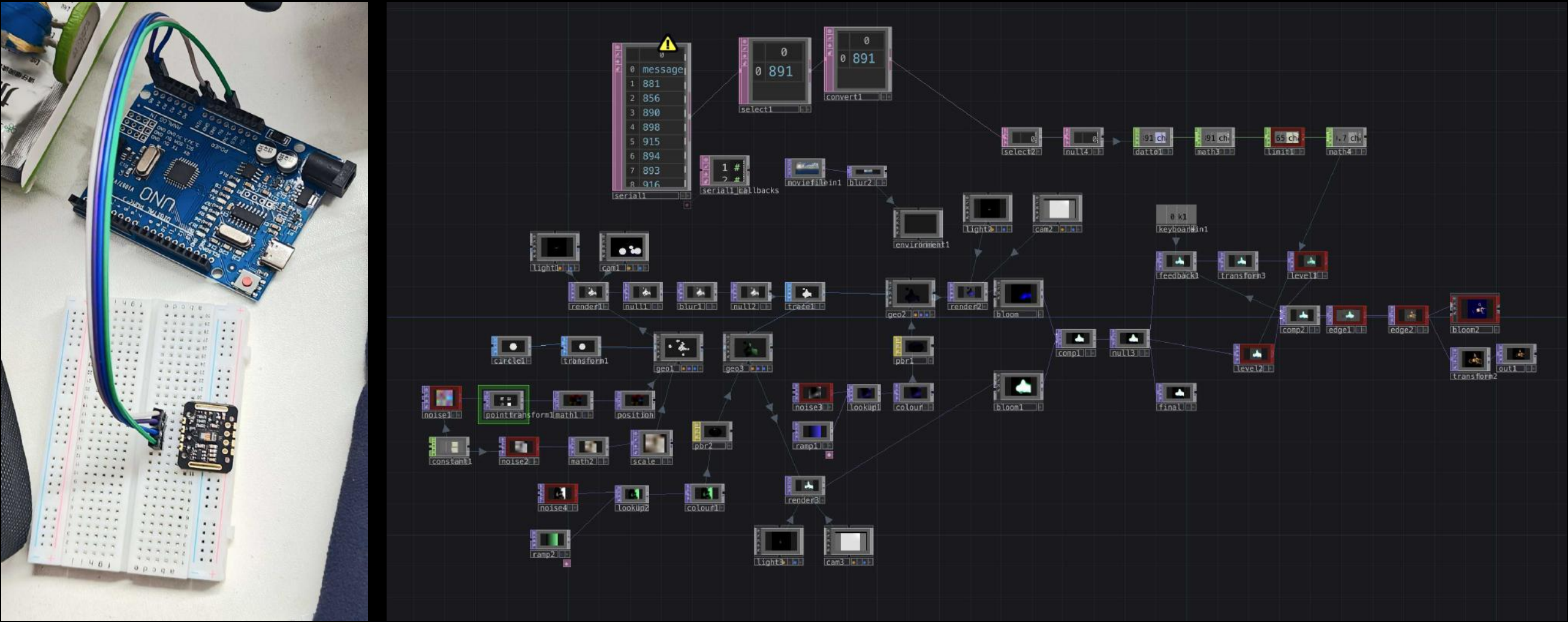


'moderate rain' hitting roof tile

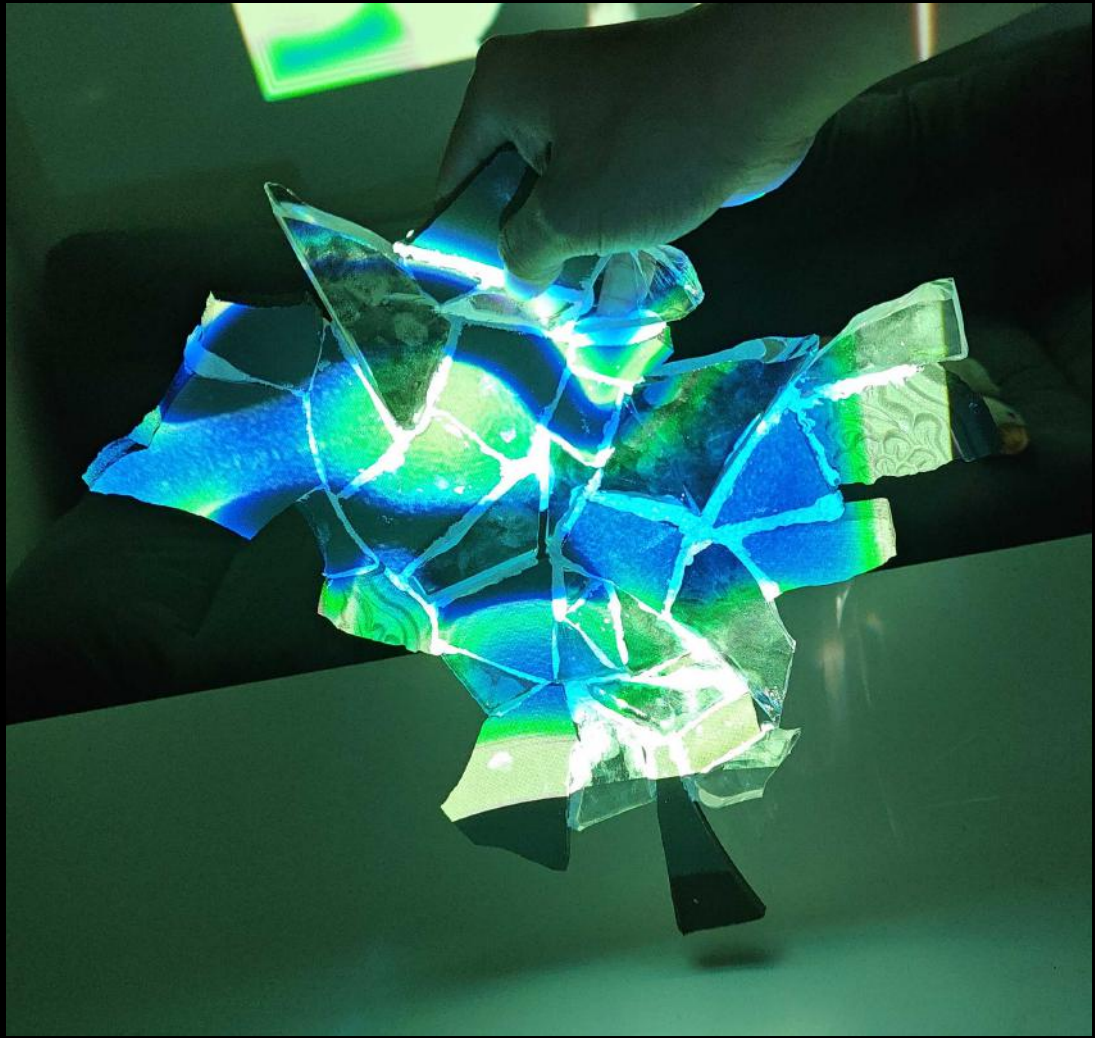
'Raindrop' shape in different shutter speeds.
1. Human eye close to 1/25 second
2. Shape can be seen in 1/2500 of a second

Sound frequency of different 'Raindrop'

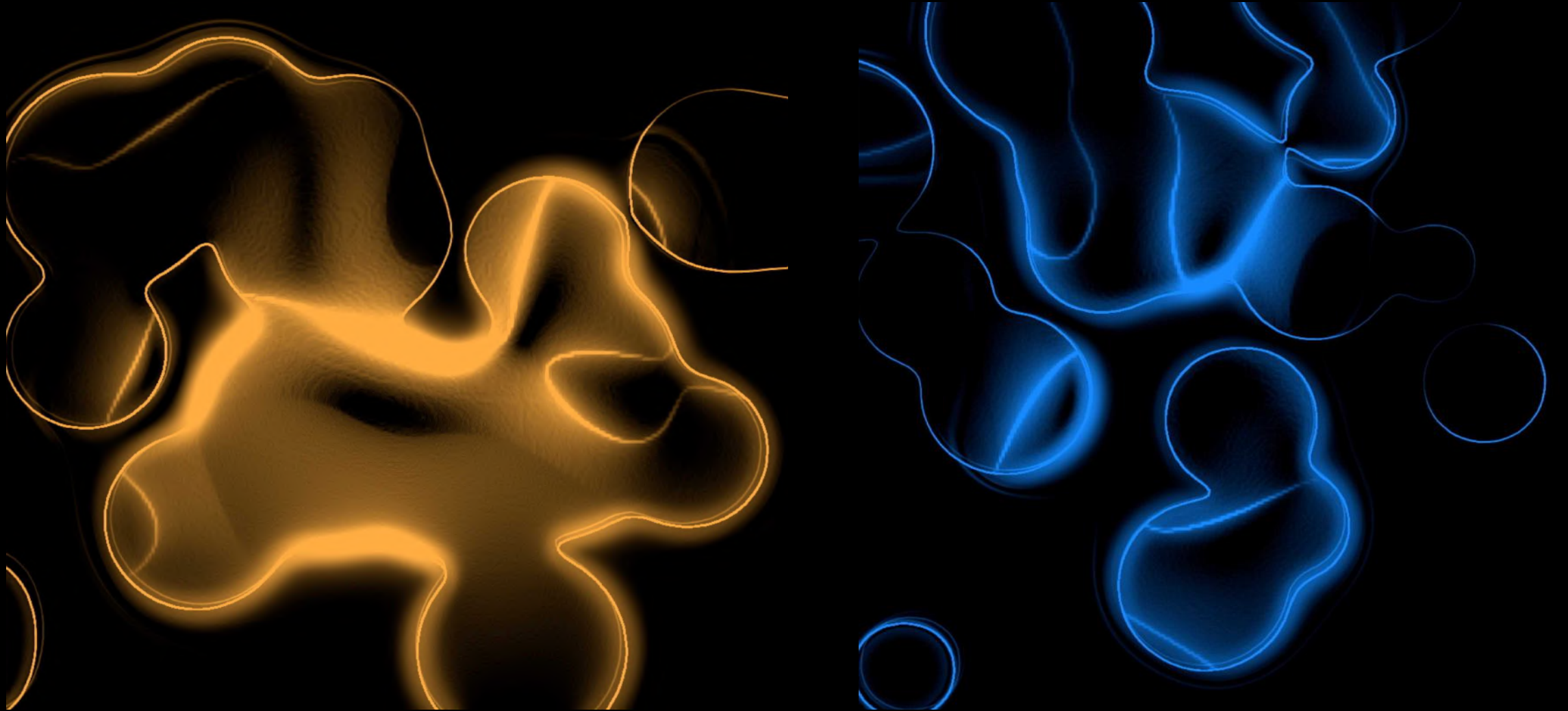
Process



MAX30102 heart rate sensor collects data to control visual brightness in Touchdesigner, synchronizing with the participant's heartbeat in real-time.



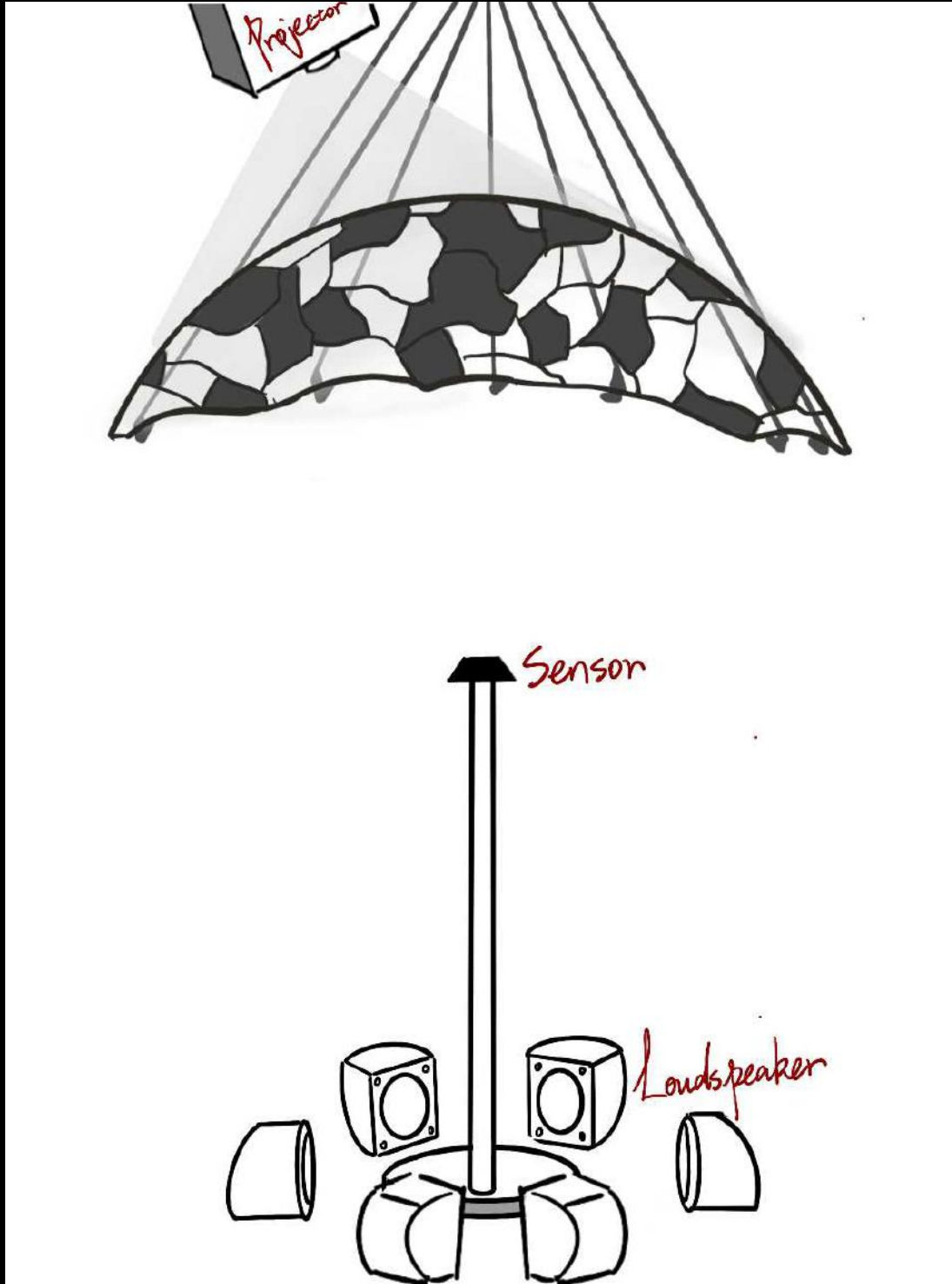
Visual test on the model.



The two final versions of the visual design. Inspiration comes from previous experiments.



Make the hemispherical dome structure Thickness: 8mm Diameter: 70cm
1. Smash the glass and tiles.
2. Use white epoxy resin adhesive paste to bond the fragments onto surface of hemispherical acrylic mold.



Lift the hemispherical dome structure with 12 sets of hooks and ropes, and it underwent a safety test.
In the center, a heart rate sensor placed on the top of acrylic stick.

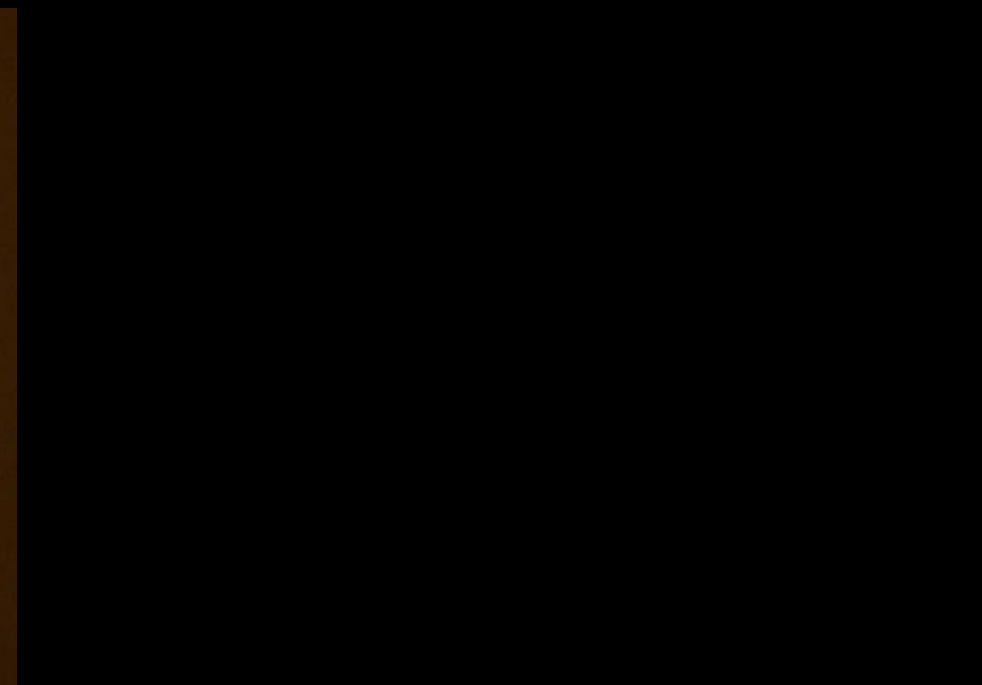
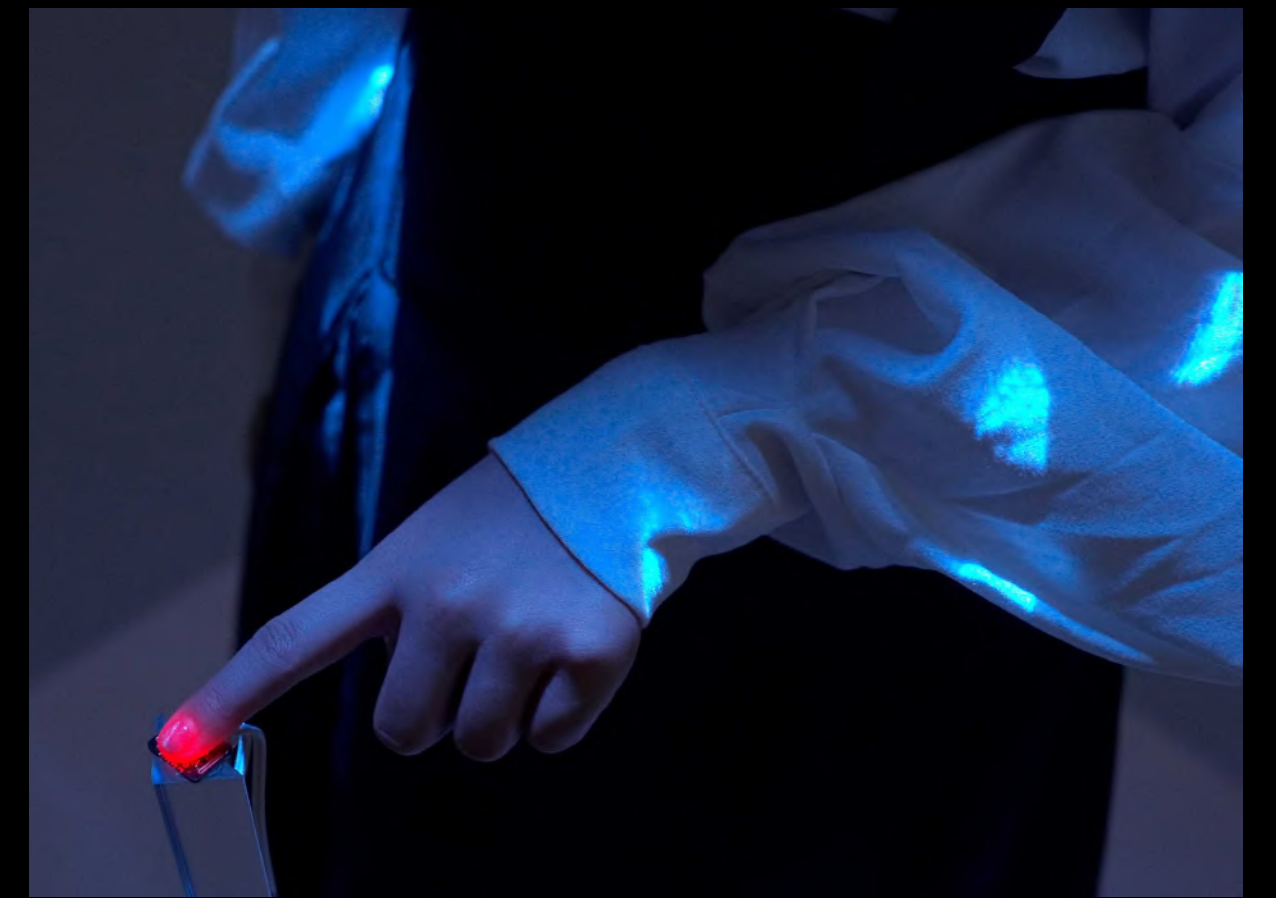
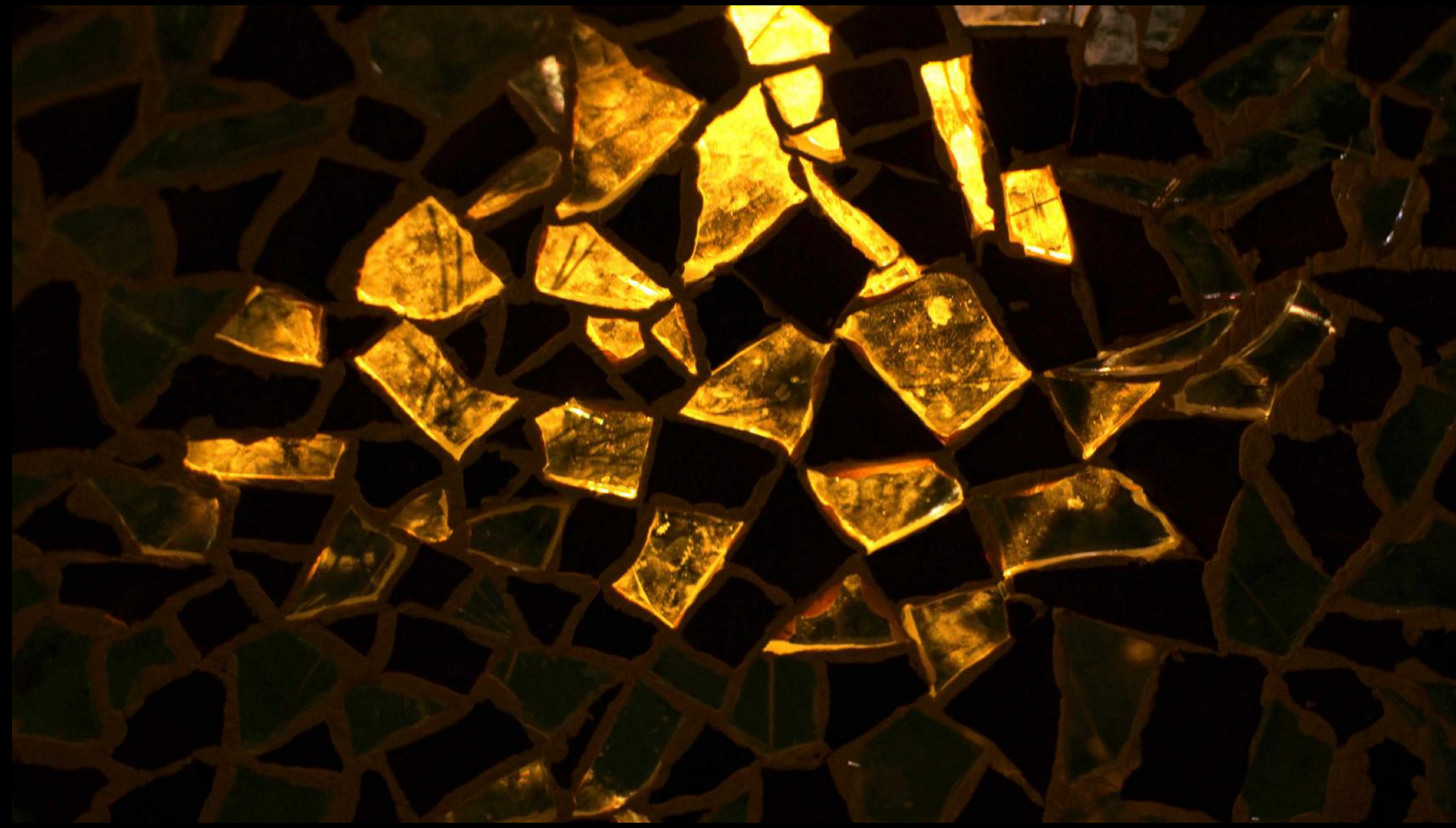
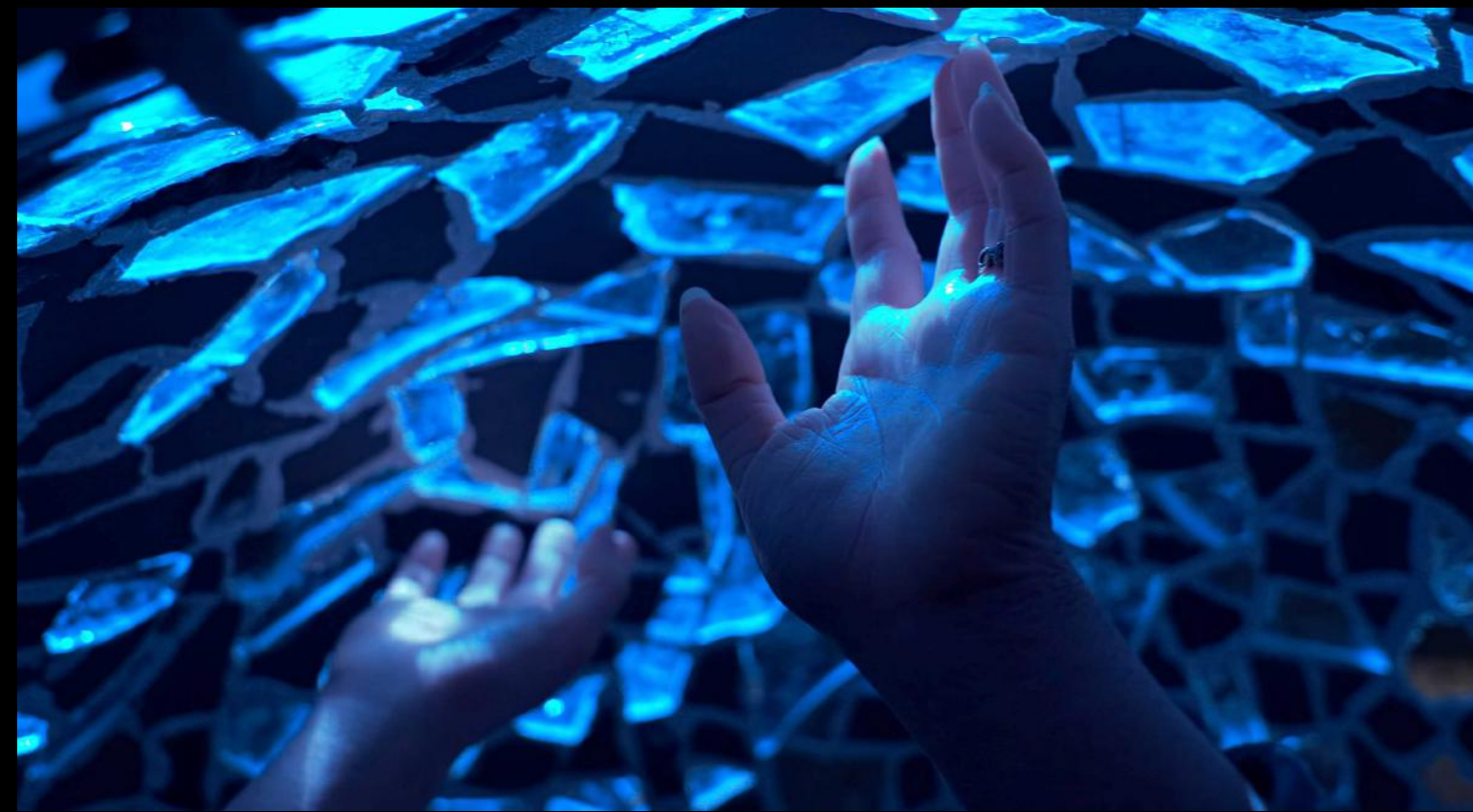


Sound editing and effects processing in Ableton



12 small speakers playing rain sounds.





<https://youtu.be/nRD2uHHBtLU>

Interactive video installation (Real-time)

2024

BEIJING

Data-Generate Image, sound, heart rate sensor
Glass, tile, acrylic, plastic, epoxy resin adhesive

No.3 Stew

My grandmother's home is in Niumutun Village, Xiji Town, Tongzhou District, Beijing, a small village at the border of Beijing and Hebei. Xiji was once an industrial hub, but all factories were shut down due to industrial relocation policies in the 21st century.

During my childhood, I often visited my grandmother and formed strong emotional ties with my family. However, as I grew older, I became immersed in urban life, and my relatives gradually ceased to be a central part of my daily life. We only reunited during special holidays, when they would display their friendly and cheerful sides, concealing the struggles they faced. Over time, I realized that these hidden difficulties were actually concealing deep pain.

My identity lies between the city and the countryside. While I live, study, and work in the city, I sometimes long for the warmth and simplicity of rural life. My connection to the countryside has become increasingly distant, prompting me to reflect on this relationship.

I am part of China's first generation of urbanites, born and raised in the city. My parents grew up in the countryside and later moved to the city. Though I live in the city, I ponder whether by choosing urban life and distancing myself from rural relatives, I, too, have abandoned or betrayed the countryside.

In the 1980s, my eldest uncle started farming vegetables with my grandfather. In the 1990s, my second and third uncles moved to the city to work after finishing middle school. The second uncle worked in logistics, while the third uncle held several jobs, from a textile factory worker to a taxi driver. However, with the rise of ride-hailing services in 2016, he lost his job and was forced to return to the village. Over the past 20 years, their income has steadily declined, far below the city's median level.

Urbanization has created an imbalance between urban and rural development, with scarce job opportunities in rural areas leading many to migrate to the city. However, high housing costs and living expenses make it difficult for rural migrants to establish stable lives in the city, often forcing them to return to the countryside as marginalized groups.

In my hometown, the traditional stew pot was a common rural cooking device in northern China, usually paired with a low brick or clay stove. Today, it has been replaced by modern gas stoves and woks, used only during family gatherings to prepare large stews. During these reunions, my third uncle would buy ingredients from the market, and my third aunt would cook. We would wait together, chatting and sharing life stories. The traditional stew pot has two sides: the top touches the food, while the bottom touches the fire, accumulating soot over time, hidden from view under the stove.

Through this reflection, I hope to explore my shifting identity between the city and the countryside, and the emotional bonds with my relatives. Have I, like the urbanization process, abandoned the countryside by choosing city life and reducing contact with my rural relatives?

In my work **Stew**, I use the two sides of the traditional stew pot to symbolically represent the dual aspects of my relatives' lives — happiness and hardship.

I also interviewed my grandmother, grandfather, uncles, mother, and myself. The interviews are displayed on two black-and-white TVs, two CRT monitors, and one LCD screen, all arranged in a circle with red bricks collected from the village. In the center is a traditional stew pot on a brick stove. When participants touch the stew pot, soot from the bottom transfers to their hands, triggering a sensor that brings the interview videos back to the center of the screen.



Photo by JIA TONGLIN, Viewing the residential buildings in Xianghe County, Hebei Province, from the village.



Photo by JIA TONGLIN, Stewed meat cook with a traditional stove pot.



Photo by JIA TONGLIN, Childhood at grandma's home.

Conducting field research in the village and collecting bricks.



An abandoned house, with the brick courtyard wall collapsed.



The fitness square turned into a crop drying field, with no villagers using the fitness equipment.



The site of a village-run furniture factory, closed during the process of relieving non-capital functions, and the original site has been greened.



Stacked bricks next to the small vegetable garden at Uncle's doorstep.



Another long-uninhabited house, with the main door tightly closed, but it is said that the family will rebuild the house within the next two years.



Construction waste piled up along the village's main road, with the building on the right being a public restroom that has never been opened after construction.



The traditional stove pot, once a daily necessity in the kitchen, is now only used during family reunions.



Grandpa is demonstrating how to quickly build a stove with bricks.

The artist hopes to learn facts through interviews that he was previously unaware of.



Testing the installation at Grandma's house. Different display medium represent different eras.



<https://youtu.be/Xpi3brFbRul>
https://youtu.be/cY1dlsm_mkl

Installation
 2024
 Niumu Tun Village, Xiji Town, Tongzhou District, Beijing
 Black-and-white television, CRT monitor, LCD monitor, iron pot, red bricks,
 distance sensor, RF signal transmitter, video



No.4 Shouting Ads



Photo by Tonglin Jia, Shouting Ads in elevator



Photo by Tonglin Jia, Shouting Ads in elevator

Shouting ads uses viral slogans, repetition strategies, and exaggerated audiovisual symbols to force viewers to remember the brand, product name, and features within a short period (usually 15 seconds). They are often placed in elevators because people's perception in such small, confined spaces is heightened, making it easier and unavoidable for viewers to notice the ads. They attempt to create affinity and trust in the product through exaggerated facial expressions and dramatic performances by the actors. But I feel these ads "invade" my life.



Photo by Xinpianchang, An AD for the Lege Lifting Table



Photo by Xinpianchang, An AD for the Changba Karaoke Speaker Microphone



Photo by Xinpianchang, An AD for the Weilong Spice Konjac Noodles

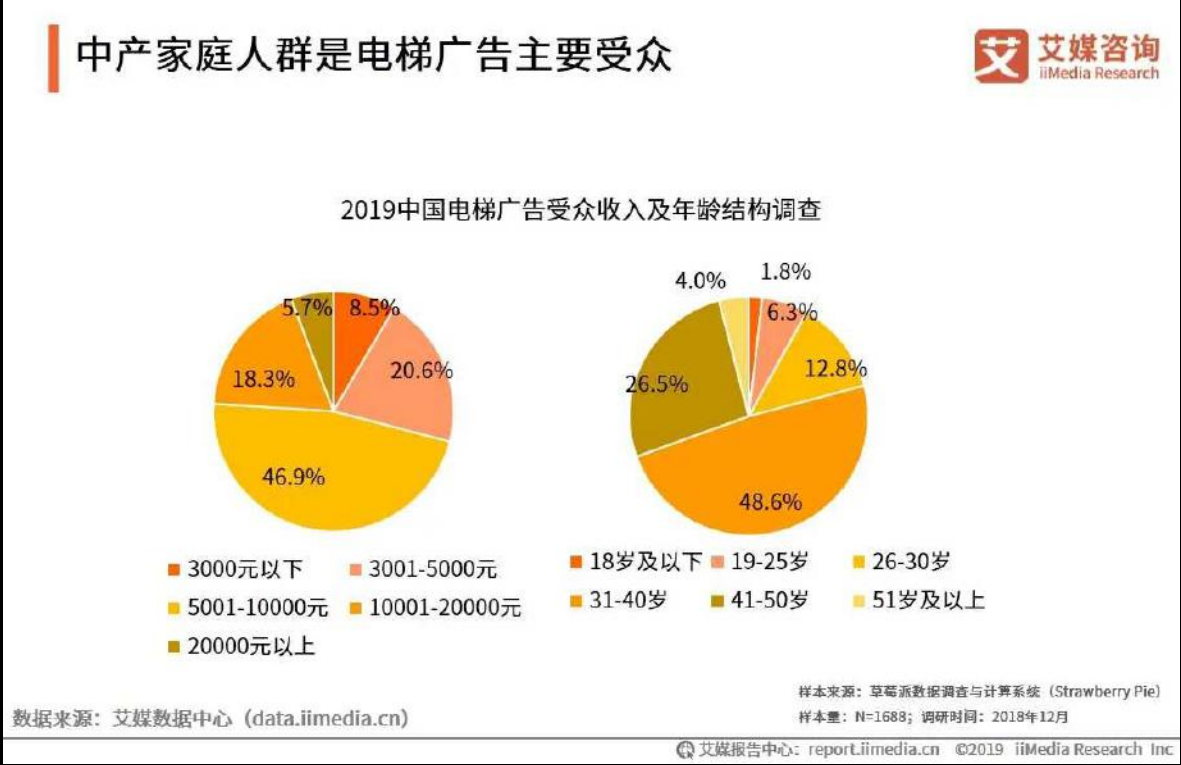


Photo by iiMedia Research, 2019 China elevator advertising audience income and age structure survey

Shouting ads are precisely targeted based on big data analysis, taking into account factors like the consumer's occupation, income, age, etc. It analyzes each of us, so I decided to analyze these ads as well. I selected three of the most frequently seen ads, extracted images of the actors' facial expressions, and used MTCNN (Multitask Cascaded Convolutional Networks for Face Detection and Alignment) for facial landmark recognition and combined with the theory of criminal psychology to display the changes in their expressions. The actor's expressions do not match their inner emotions, creating a "pseudo-emotion" effect. This discrepancy makes the audience feel the inauthenticity of the emotions, thereby causing discomfort. Additionally, I captured the audio waveform of the ads to illustrate the rhythm of the advertisement.

In TouchDesigner, I rearranged the extracted facial expressions to form dynamic Chinese characters for the ad slogan and overlaid them with a blurred version of the original ads. Through the deconstruction of the shouting ads' data and visual reinterpretation, I completed a "Counter-Invasion" of shouting ads. Ultimately, I showcased these visual effects and the original sound of the ads in an office building elevator that had never before shown any ads. This elevator space became unique, it was not colonized by shouting ads but transformed into a space for dialogue and reflection on shouting ads.


```
import os
from micon import MTOM
import cv2
import json
import numpy as np

# 初始化 MTOM
detector = MTOM()

# 输入输出路径
input_folder = "g"
output_json = "face_detection_results.json"
os.makedirs("output", exist_ok=True)

# 存储所有检测结果
all_results = {}
no_faces = [] # 用于存储未检测到人脸的图片名称

# 遍历文件夹中的所有图片 (检测率)
for filename in sorted(os.listdir(input_folder)): # 使用 sorted() 对文件名进行排序
    if filename.lower().endswith(('.jpg', '.jpeg', '.png', '.bmp')):
        image_path = os.path.join(input_folder, filename)
        image = cv2.imread(image_path)

        # 如果 image 是 None:
        if image is None:
            print(f"❌ 无法加载图像: {filename}")
            continue

        image_rgb = cv2.cvtColor(image, cv2.COLOR_BGR2RGB)
        results = detector.detect_faces(image_rgb)

        if not results: # 如果 results 为空, 表示没有检测到人脸
            continue

        # 过滤掉 'confidence' 和 'box', 只保留 'keypoints'
        filtered_results = {}
        for face in results:
            # 将 face 转换为 numpy 数组 (检测到的 Python 数组类型)
            keypoints_converted = {key: [int(coord) for coord in point] for key, point in face['keypoints'].items()}
            filtered_face = {keypoints_converted: keypoints_converted}
            filtered_results.update(filtered_face)

        # 将结果保存到字典
        all_results[filename] = filtered_results

# 打印: 在图像上识别人脸的关键点
for face in filtered_results:
    for key, point in face['keypoints'].items():
        cv2.circle(image, (point[0], point[1]), 2, (0, 0, 255), -1)

# 保存处理后的图像
output_image_path = os.path.join("output", f"processed_{filename}")
cv2.imwrite(output_image_path, image)

# 保存检测结果到 JSON
with open(output_json, "w", encoding="utf-8") as f:
    json.dump(all_results, f, indent=4, ensure_ascii=False)

# 输出识别出人脸的图片名称
if no_faces:
    print(f"❌ 以下图片未检测到人脸:")
    for name in no_faces:
        print(f"    {name}")
else:
    print(f"✅ 所有图片都检测到了人脸。")

print(f"📁 检测结果已保存到 {output_json}")
```

```
import json

# Load the JSON file
with open("face_detection_results.json", "r") as f:
    detection_results = json.load(f)

# Initialize subtitle content
subtitles = []
frame_duration = 0.1 # 0.5 seconds per frame
frame_number = 1

# Process each frame in the JSON file
for frame, detections in detection_results.items():
    if len(detections) > 0: # Only include frames with detected faces
        start_time = (frame_number - 1) * frame_duration
        end_time = frame_number * frame_duration

        # Convert time to SRT format (hh:mm:ss,ms)
        start_srt = f"{int(start_time // 3600):02}:{int((start_time % 3600) // 60):02}:{int(start_time % 60):02},\n{int((start_time % 1) * 1000):03}"
        end_srt = f"{int(end_time // 3600):02}:{int((end_time % 3600) // 60):02}:{int(end_time % 60):02},\n{int((end_time % 1) * 1000):03}"

        # Generate subtitle text based on keypoints
        subtitle_text = ""
        for detection in detections:
            keypoints_text = "\n".join([f"{key}: {value}" for key, value in detection['keypoints'].items()])
            subtitle_text += f'"{keypoints_text}\n"'

        # Add to subtitles
        subtitles.append(f"{frame_number}\n{start_srt} --> {end_srt}\n{subtitle_text}\n")
        frame_number += 1

# Write subtitles to an .srt file
with open("output_subtitles.srt", "w") as subtitle_file:
    subtitle_file.writelines(subtitles)

print("Subtitles generated and saved to output_subtitles.srt")
```

```
import cv2
import numpy as np
import cv2
import json

# 1. 加载人脸检测器
detector = cv2.FaceDetector()

# 2. 加载输入图像
image = cv2.imread('input_image.jpg')
image_rgb = cv2.cvtColor(image, cv2.COLOR_BGR2RGB)

# 3. 检测人脸
results = detector.detect_faces(image_rgb)

# 4. 提取人脸特征点
for face in results:
    keypoints = face['keypoints']
    keypoints_converted = {key: [int(coord) for coord in point] for key, point in keypoints.items()}
    filtered_face = {keypoints_converted: keypoints_converted}

# 5. 生成字幕文本
frame_number = 1
start_time = 0
end_time = 0.1
subtitle_text = ""

for detection in filtered_face.items():
    keypoints_text = "\n".join([f"{key}: {value}" for key, value in detection[0].items()])
    subtitle_text += f'"{keypoints_text}\n"'

# 6. 将字幕添加到 SRT 文件
subtitles.append(f"{frame_number}\n{start_time} --> {end_time}\n{subtitle_text}\n")
frame_number += 1

# 7. 写入 SRT 文件
with open('output_subtitles.srt', 'w') as subtitle_file:
    subtitle_file.writelines(subtitles)

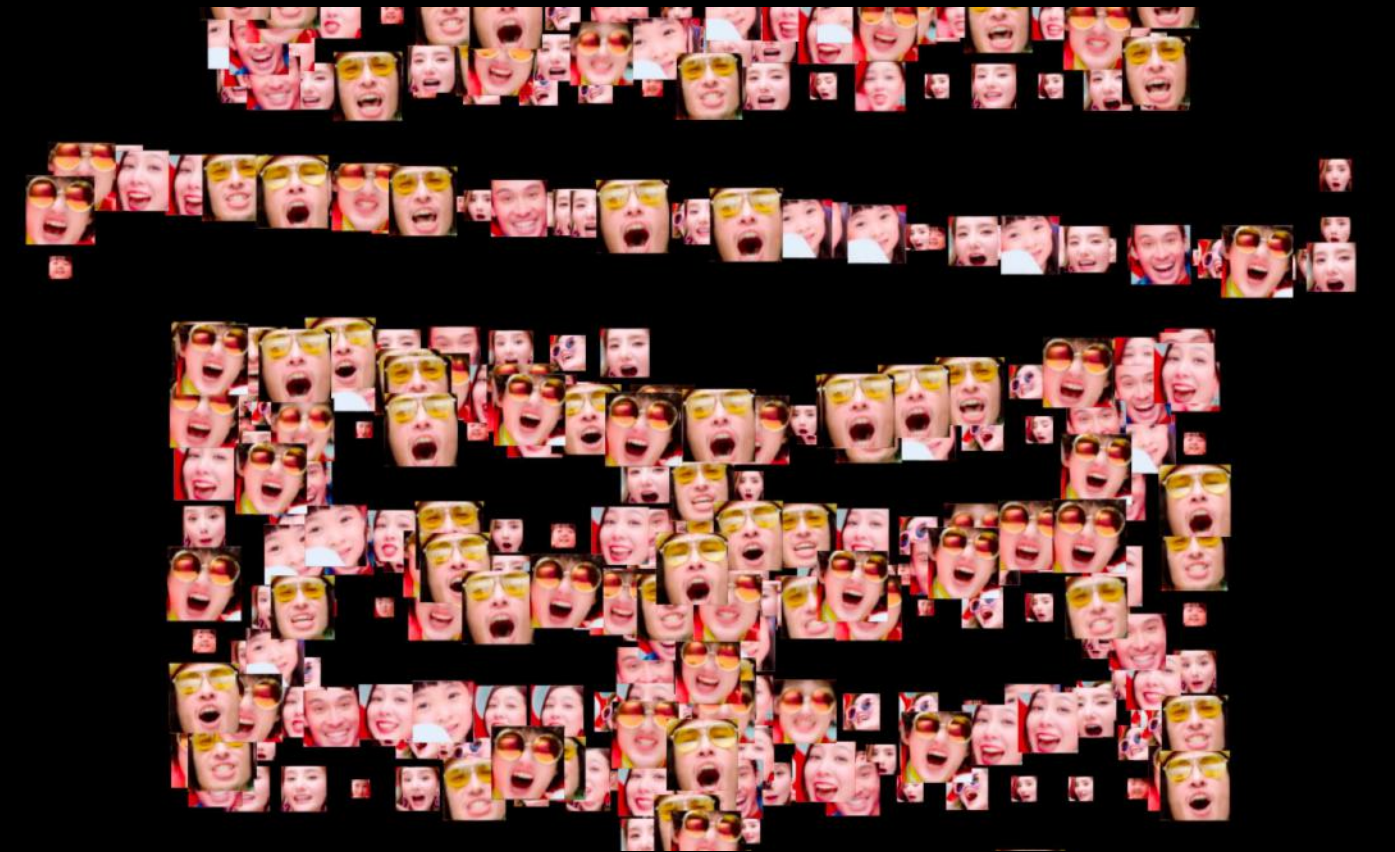
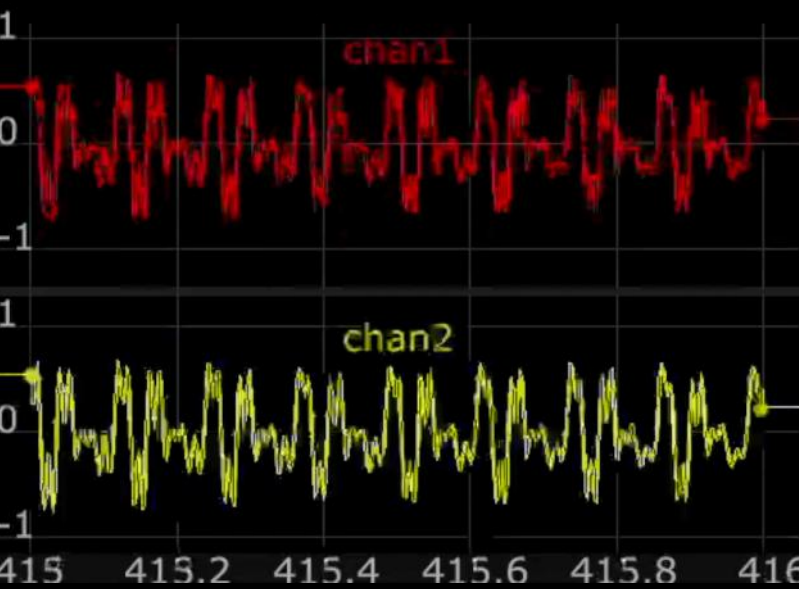
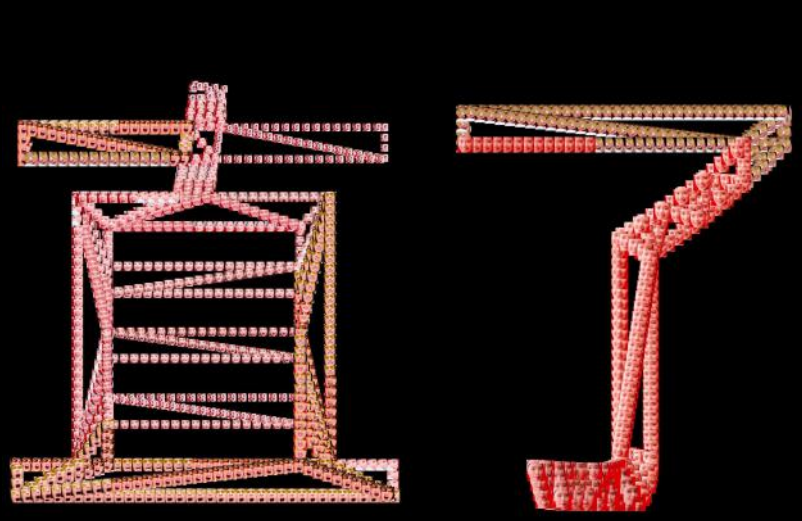
print("Subtitles generated and saved to output_subtitles.srt")
```



Create dynamic Chinese characters for the ad slogan in TouchDesigner



nose: [62, 68]
mouth_right: [89, 102]
right_eye: [93, 41]
left_eye: [48, 41]
mouth_left: [54, 101]



Visual Design



Video Installation

2024

Elevator #1, Building 9, Jianwai SOHO East
District, Chaoyang District, Beijing
Advertising display, video

<https://youtu.be/fyRUVNK1NLk>

